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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

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Number 1
Volume XXXII

Atlanta, Georgia, January, 1943

Single Copy, 30 Cents
Per Year - - \$3.00

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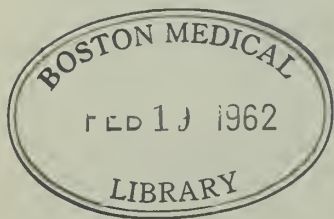
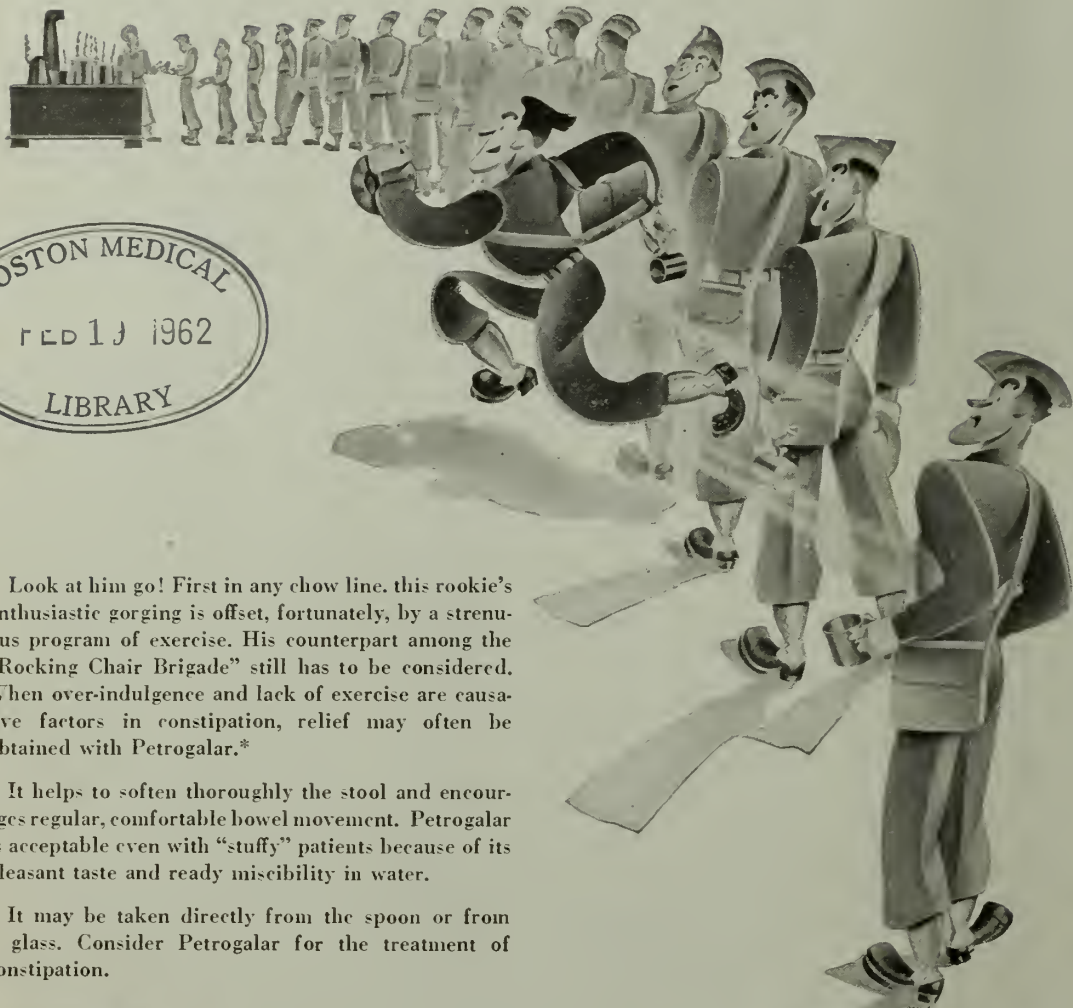
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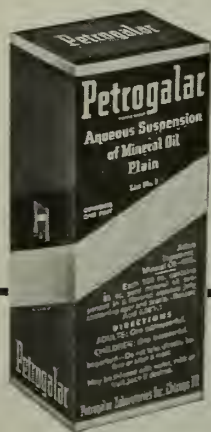
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THE JOURNAL

OF THE

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DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
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VOL. XXXII

Atlanta, Georgia, January, 1943

Number 1

DIAGNOSIS AND TREATMENT OF CANCER OF THE BREAST

ARTHUR PURDY STOUT, M.D.
New York, N. Y.

Pending the discovery of a specific form of therapy for cancer of the breast, it is our belief at the Presbyterian Hospital in New York that the only treatment offering hope of cure is early and radical operation. The treatment must be early because the disease is only curable while it still remains localized to tissues which can be removed and each day of delay increases the chances of its extension beyond that zone.

There are two principal causes for delay. The first is the failure of the woman herself to become aware that there is anything wrong with her breast. Two methods of combatting this have been proposed: first, the periodic health examination, and second, encouragement of the woman to feel her own breasts at routine intervals. I shall not discuss these except to say that I am strongly in favor of self-examination and have no fear that it would increase the number of women suffering from cancerphobia.

The second cause of delay is concerned with the physicians themselves. A few years ago we found that women with breast cancers who eventually were treated at the Presbyterian Hospital had had that treatment delayed an average of 8.7 months because of procrastinating advice received from physicians whom they had previously consulted. My belief is that there are many physicians who have never learned the technique of the examination of the female breast and its environs and who are not sufficiently familiar with what should be considered a clinically suspicious lump in the

breast. I propose therefore to demonstrate to you the technique used by my associate, Dr. C. D. Haagensen, and myself at the Presbyterian Hospital. In order that the various signs to be illustrated may properly be understood it seems wise to describe how cancer grows and spreads in the breast.

The great majority of cancers start from a focal point, probably in the lining cells of a duct. From that point they can spread in four different ways. The first is by direct invasion of the surrounding breast tissue. As this is almost always accompanied by fibrous tissue, which contracts as it forms, it may pull upon the skin or nipple causing dimpling, and upon the pectoral sheath producing limitation of mobility and the lump is always attached to the breast tissue, moving with it and not independent of it. In late stages there may be actual invasion of the skin and solid fixation to and invasion of the pectoral muscle.

The second method of extension is along the duct system which may carry tumor cells far from the parent tumor without causing sufficient thickening to enable one to feel it. When such spread reaches the epidermis of the nipple and areola it may produce the superficial erosion known as Paget's disease. One should remember that if Paget's disease of the nipple is present there is always a cancer in the breast. Intraductal involvement rarely causes bleeding from the nipple; in our experience only 0.6 of 1 per cent of women with cancer of the breast show this sign.

The third method of spread is by the lymphatics. This usually produces secondary growths in the axillary, supraclavicular, mediastinal or other lymph nodes. But growth may also be retrograde toward the skin. This may block the skin lymphatics producing the so-called pigskin or orange skin edema. This first appears caudad to the tumor when it is due to cancer. If it is caused

by inflammation alone the orange skin effect is usually in the skin directly over the lump. Continued spread in the skin lymphatics can lead to the formation of secondary skin nodules and occasionally to a slow thickening and hardening which may involve the skin over a wide area beyond the mammary region. This effect has been called breast-plate cancer or cancer en cuirasse.

Finally cancer may spread through the blood stream and form secondary foci in distant parts, especially the lungs, bones, and abdominal viscera.

Sometimes the growth of cancer is accompanied by a localized inflammatory reaction in the breast characterized by reddening, local heat, and edema, but without pain or fever. This rare form is peculiarly malignant and we have never seen such conditions cured.

Equally fatal are the rare cancers which develop during pregnancy or lactation. It is wise always to keep in mind that cancer of the breast can occur in young women. Two per cent of our breast cancers developed in women between 20 and 30 years of age.

With these facts in mind, let me demonstrate the methods which are pursued in the Presbyterian Hospital in examining the breast. The patient used for illustration is a 45-year-old housewife who came to the clinic complaining of a painless lump in the left breast of nine months' duration. The patient is stripped to the waist and her clothes arranged so that they will not slip down. She is seated with arms down, hands in lap and shoulders level. The breasts are found asymmetrical, with the left one elevated and there is axial deviation of the nipple. There is also a dimpling of the skin and this overlies a hard mass 2 cm. in diameter. She is asked to raise her arms and all these features are accentuated.

The next position is standing and bending forward at the waist which can be done if the patient holds on to the back of a chair to keep from falling. The normal breasts, even if there is a slight difference between them, will hang forward from the body freely and there will be no accentuation of their inequality, but in this patient the left breast does not hang away from the body as freely as the right and again the difference between

the two breasts and dimpling is accentuated. In all three of these positions the tumor is palpated and it is learned that it is hard, moves with the breast tissue and not independent of it, that this breast does not move as freely on the underlying pectoral sheath as does the right breast and that moving the lump accentuates the dimpling in the skin.

The patient is next asked to lie down on her back. In order to examine the left breast, she rolls slightly toward the right, raises the left arm and keeps the right at her side. This tends to spread the breast tissue widely over the chest wall and brings all parts of it as close to the surface as possible. Before palpation a little talcum powder is spread on the skin. This permits the palpating fingers to slide easily over the surface so that impressions coming to the brain from the skin do not mask the impulses coming from the deeper mammary tissues. During palpation the eyes are closed to remove all visual impressions and allow one to concentrate more intently. These refinements may seem superfluous but I believe very strongly that rough palpation or squeezing of the breast can cause metastases from a cancer, and I am opposed to any method of examination which causes pain.

In order to determine whether or not the tumor is fixed to the pectoral sheath, the breast and tumor are moved first from side to side, with the pectoral muscle at rest. Then the pectoral muscle is contracted by asking the patient to grasp the hip and squeeze it strongly. If the tumor is attached to the sheath by fibrous strands its mobility will be restricted. This does not occur in chronic cystic disease or with benign tumors. The maneuver may be done in the erect position.

Determination of the presence or absence of enlarged axillary nodes is always important and it is surprising how easy it is to miss quite large masses by careless palpation. The patient's arm is relaxed and supported by the examiner and palpation is done with the extended fingers. Nodes can be felt if the axillary tissues are rolled under the fingers from above downward and from side to side.

Palpation of the supraclavicular regions, which is always carried out, can best be done

by standing behind the seated patient. They should always be inspected first and any inequalities noted.

In order to amplify these remarks on breast diagnosis, I shall point out certain other features.

The breasts may be symmetrical and show nothing externally and yet manipulations can bring out the telltale skin flattening which almost always suggests that a lump is a cancer.

Occasionally cystic disease may mask an unsuspected cancer. A 29-year-old woman had a cyst which was easily apparent. It fluctuated and had a smooth outline. When moved it produced no puckering of skin or retraction of the nipple. Yet at operation a small cancer was found deep to it and in spite of radical mastectomy the patient died with metastases in eighteen months.

Cancers can grow to an enormous size without skin ulceration and with extensive orange skin edema affecting all of the lower part of the breast.

The presence of skin edema, even of very slight extent, is always a grave prognostic sign in breast cancer. In one case a small patch was just below the nipple. The tumor was above the nipple and had caused nipple retraction.

A cancer solidly fixed to the chest wall with invasion of the pectoral muscle which cannot be moved independently from the muscle is regarded as inoperable.

The skin in inflammatory cancer is red, edematous and hot, but with no pain or elevation of body temperatures. Such a case is inoperable.

Cancer in a case of suppurative lactational mastitis which has been incised several times and the presence of the cancer only determined by biopsy is regarded as inoperable.

Superficial erosion of the nipple caused by infiltration of the epidermis with cancer cells coming from the ducts, Paget's disease of the nipple, is always cancerous and should be treated by radical mastectomy.

Axillary metastases may reach a huge size and become fixed to the surrounding tissues. This is a sign of advanced cancer.

Our rule in regard to any solitary or dominant lump in a woman's breast is that it must be examined microscopically to de-

termine whether or not it is cancer. We do not use the aspiration method of biopsy but expose the mass, take a piece from it, and examine it by the quick frozen section method. If the lesion is not cancer, the mass is removed and nothing further is done. If it proves to be cancer, the radical operation is done provided it is considered to be in the operable stage. If the clinical signs are sufficiently characteristic of cancer and the case is considered operable, the radical operation is done without biopsy.

How can one tell whether or not a case is operable? To determine this my associate, Dr. C. D. Haagensen, and I took, one by one and also in combination, certain physical signs and noted the follow-up results of radical mastectomy in all of the cases which showed these signs in our series. If we found that radical mastectomy resulted in no cures at all, we felt that the operation had been futile.

The results of this investigation gave us our clinical criteria of inoperability (table 1). The first eight we speak of as mandatory; that is, the mere existence of each physical sign alone means that the patient cannot be cured by any procedure. The last group of signs are not contraindication if present alone but, if two or more are present in the same patient, it is recommended that no operation be done.

TABLE 1
Clinical Criteria of Inoperability

1. The "inflammatory" type of breast carcinoma.
2. Extensive edema of the skin over the breast.
3. Satellite tumor nodules in the skin over the breast.
4. Edema of the arm.
5. Intercostal or parasternal nodules.
6. Proved or clinically unquestionable supraclavicular metastases.
7. Distant metastases to the contralateral axilla, lungs, bones, liver, elsewhere.
8. The development of the breast tumor during the course of pregnancy or lactation.
9. The presence of any two or more of the following signs of locally advanced breast carcinoma:
 - a. Ulceration of the skin.
 - b. Edema of the skin of limited extent.
 - c. Fixation of the tumor to the chest wall.
 - d. Fixation of the axillary lymph nodes to the skin or the deep structures of the axilla.
 - e. Axillary lymph nodes measuring 2.5 cm. or more in diameter (clinical measurements).

If radical operation is denied what shall be done with the patient? We investigated the survival rate of patients with breast cancers which had been dealt with in various ways from onset to death. Untreated patients and those regarded as inoperable and given only palliative therapy without the use of either surgery or radiotherapy had a mean survival rate of from forty to forty-two months. Patients now regarded as inoperable by us, but formerly treated by radical mastectomy, had a mean survival rate of only thirty-two months. Patients now regarded by us as inoperable but whose lesions formerly were treated by simple or partial mastectomy had a mean survival rate of thirty-eight months. A more recent group of patients with inoperable lesions treated by modern methods of intensive radiotherapy had a mean survival rate of only forty and a half months but had considerable amelioration of symptoms. Thus we concluded that radical operation in inoperable cases actually shortened life, simple operations and other palliative measures had no appreciable effect, while modern intensive radiotherapy, although it did not lengthen life, gave the greatest amelioration of symptoms.

Thus our procedures are guided by experience. Cancer patients for whom we have some hope of cure, however remote, are treated by radical surgery without radiotherapy except for the treatment of metastases. Patients with hopeless lesions are treated by irradiation and never by radical surgery. Occasionally simple mastectomy is used for advanced ulcerated cases which have not been controlled by radiotherapy.

Because of the very widespread use of the estrogenic hormones for various disorders but particularly for the control of untoward menopausal symptoms, the question arises as to whether or not such use may induce the growth of breast cancer. It is well established that long continued treatment with high doses of estrogenic hormones can produce cancers in the breasts of both male and female mice of certain strains. It is also established that estrogens can produce in both animals and humans an increase in the number of mammary ducts and acini and an intraductal proliferation of lining epithelial cells; the very cells from which

most breast cancers are derived. Three cases of human breast cancer are on record which followed the administration of estrogenic hormones (Allaben and Owen 1939; Auchincloss and Haagensen 1940; and Parsons and McCall 1941). In each of these cases the hormones may have been a factor contributing to the development of the cancer but the number is too few to permit any conclusions. It would appear, however, that the possibility exists and therefore the indiscriminate and uncontrolled use of these substances cannot be regarded as without danger. Auchincloss and Haagensen express the opinions of our Presbyterian Hospital Neoplasm Clinic when they condemn the use of estrogenic substances in very large or prolonged doses, and urge that their use should always be accompanied by an initial and repeated clinical examination of the breasts in order to observe whether or not the hormones are affecting the mammary glands. Finally, we are all in agreement that they should not be used at all in women with a familial history of breast cancer nor in women with chronic mastitis or any kind of a breast tumor.

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Treatment employing 2.5 per cent sulfadiazine, a member of the sulfanilamide family of drugs, in 8 per cent triethanolamine, an emulsifying agent and solvent useful for applying certain medicaments to the skin, was found to be valuable in 30 of 32 patients with second and third degree burns, Milton Rothman, M.D.; Joseph Tamerin, M.D., and Jesse C. M. Bullowa, M.D., New York, report in *The Journal of the American Medical Association* for November 14. The area burned varied from 12 to 45 per cent of the body surface. This recovery rate is very high in view of the severity and extensiveness of the burns. The treatment they used is a modification of one reported last year by K. L. Pickrell, M.D., at Johns Hopkins Hospital.

The solution was applied by spraying on the surface of the burn every hour on the first day, every two hours on the second day, every three hours on the third day and every four hours on the fourth day. The wound was dried by fanning or with warm air after each application. Translucent scab formed in twenty-four to thirty-six hours and alleviated pain and the need of frequent dressings. There were no reactions from the sulfadiazine and the solution may be employed without irritation or constriction about the face, mouth, eyes, joints and fingers.

A LEAF OUT OF MEDICAL HISTORY

ARTHUR D. LITTLE, M.D.
Thomasville, Ga.

We can think of no phase of medical history that is any more interesting than the period from 1890 to 1920. It was in the beginning of that period, certainly in American medicine, that the transition was being made to conform to the ideas of Pasteur and Lister, and the old school was dying hard, and in the confusion that occurred, medicine reached its most chaotic condition.

Allopathy, homeopathy and eclectic schools sprang up all over the country. There were absolutely no standards to be lived up to, and charters for all these various schools of medicine seemed to be granted for the asking. Many cities of fifty and sixty thousand population would have as many as three or four medical colleges; no pre-medical education was necessary to enroll in any of them; the curriculum was ridiculously inadequate and no examining board being in existence, a diploma from these makeshift colleges entitled the holder of such a diploma to prey upon the afflicted public without hindrance. There actually were so-called medical colleges that would sell a diploma without even requiring attendance and they came to be notoriously known as diploma mills. I knew a doctor during that period who had obtained his diploma by marrying a doctor's widow and inserting his own name in the deceased doctor's diploma.

It was in that period that counter prescribing reached its greatest height. Many druggists prescribed for more patients than any doctor in his town and the soda clerk took care of practically all the venereal cases.

We have not given an absolutely true picture of the medical education of that period, as there certainly were a few good medical schools, but you could count them on the fingers of your two hands and these were out-numbered by the poor schools by at least five to one.

The thing that saved the profession was

the genius of such as John Wyeth, the son-in-law of Marion Sims; Murphy, Senn and Oschner of Chicago; Robert T. Morris of New York; Joseph Price of Philadelphia; the Mayo brothers of Rochester, Minn.; Osler, Welch, Kelly and Halstead of Baltimore; Gen. W. C. Gorgas and Walter Reid of United States Army Medical Corps; Matas and Chailee of New Orleans, and many others who had the inborn instinct and curiosity or, if you will, the thirst for truth which activates the real researches in science. It was the individual and not medical colleges that kept the candle of real and worthwhile medicine and surgery from being entirely extinguished, and these and their followers finally put medicine and surgery on a sound standardized foundation through organized medicine and legislation necessary to eradicate the sub-standard schools and provide adequate postgraduate courses to produce, if not a finished product, at least a much higher and much more proficient type of practitioner.

Where there is one fundamental evil as certainly existed as to doctors of medicine, there springs many evil off-shoots and one of these was patent medicine which later became known as "The Great American Fraud". It is difficult to conceive of a situation as was produced by this terrible evil which was aided and abetted by the church, by the press and by the judiciary of this noble land of ours. These patent medicine manufacturers could with impunity make any claim of their products without regard to truth. Consumption cures were here galore and proof of the claims were freely furnished by testimonials from ministers of the gospel, good church workers, legislators, leading business men and judges of all the courts. A picture of a United States Senator endorsing Peruna was a common sight in our leading papers. That all persons so involved received handsome rewards for their endorsements and the fact that any amount of opiates, alcohol or any other patent drug could be used in the mixtures did not seem to bother the consciences of the endorsers, and the press obtained the largest part of their profit from printing the whole-page ads of the conscienceless manufacturers and vendors of worthless and frequently very harmful products—Lydia E. Pinkham's

Vegetable Compound, Ayers' Sarsaparilla, SSS, PPP, Peruna, Pierce's Favorite Prescription, William's Pink Pills for Pale People, Sloan's Liniment, Scott's Consumption Cure, Liqui-zone, Cherry Pectoral, and every conceivable ointment for the skin; hair restorers, Swamp Root for any type of kidney trouble, earache, toothache and pain-killers galore, were household remedies to be found in every home. A great many fortunes were made by manufacturing and exploiting these nostrums on an ignorant and gullible public, and when we consider that not only drug stores but crossroad stores could sell any and all narcotics to anyone wishing to buy them without violating any law, and further considering the fact that the ill-prepared physicians I mentioned, seemed to resort to the use of morphine in any and every condition, did not help the situation; and this great nation of America was rapidly becoming a race of pious addicts. Since most of the liquid patent medicines contained from 40 to 50 per cent of grain alcohol, they were not conducive to sobriety.

Whether riding by train or in horse and buggy you were scarcely ever out of sight of a patent medicine ad as they were used on billboards, sides and roofs of barns, lumber fences, cardboard and metal placards, to extol the virtues of Carters' Little Liver Pills, Mandrake Pills and a specific for every known human and animal ailment.

Public rest rooms were the favorite place for venereal ads and the walls of men and women public toilets were plastered with venereal ads, such as "O. K. Specific", "Sure Cure" and a dozen more escaping my memory, and they all carried a money-back guarantee if a cure was not effected. This guarantee was on all patent medicines but I never heard of a refund being made even when gonorrhea and syphilis produced its thousands of hopeless cripples, and consumption continued to increase in death rate, as did every other known disease.

By the middle nineties a specific for diphtheria, antitetanic serum, antirabic serum, and the proof of vaccination as a preventive of smallpox had served to convince both the medical profession and the lay public that the germ theory of disease was a

proven fact. Doctors began to buy microscopes, not to put in their laboratories to be used but to be placed on waiting-room tables under glass domes to prove to patients they were right up-to-date. Then came the x-ray machine and one or two doctors in every village would buy a sparking machine and every known ailment from flat feet to uterine prolapse was treated by sitting the patient in an insulated chair on a raised platform and using a rod with a metal ball on the end. They would proceed to spark the patient from head to foot, and the patent medicine folks had to come out with the electric belt and copper plates to be worn in the shoes to meet this competition.

Then began the revolution and, while we could justifiably blame the press and magazines for aiding and abetting the patent medicine fraud, we must also give them credit for breaking the stranglehold patent medicine had on the public, for it was a weekly magazine who hired writers and investigators who, being aided by the American Medical Association, started an expose of the greatest scope the world had ever seen. As facts were brought to light one great newspaper after another dropped patent medicine ads and joined the revolution and by every means in their power helped formulate legislation to force the manufacturers to conform to the rules and regulations outlined by Dr. Wiley, who headed the Pure Food and Drug Commission in our national government.

The rule which broke the patent medicine ring was the one requiring that the alcoholic content, the opium content and certain other information be printed on the labels and any claims stated on the label or in ads must be proven on request of a Federal Grand Jury. Then came state examining boards requiring certain standards of the schools from which applicants graduated. This eliminated 90 per cent of the so-called medical colleges. Then came the Harrison Narcotic Act and its enforcement brought to light that a dangerous percentage of our population, both urban and rural, were drug addicts. The rigid enforcement of this act has largely eliminated this woeful condition.

It remained for the American Medical As-

sociation and the American College of Surgeons to standardize our hospitals and they have done a wonderful job; and so with the sale of patent medicines brought to a minimum, the sale of narcotics brought under rigid regulations, the weak medical schools closed, and the standard of the ones remaining open brought to a very high level, the formation of medical examining boards in every state, and the standardizing of our hospitals, brings American medicine to a sounder basis than has ever been attained in this or any other country; and the deeds of accomplishment by the medical profession during the period mentioned and continuing to date are most astounding.

Smallpox, yellow fever, Asiatic cholera, bubonic plague, tetanus, rabies, diphtheria, typhoid fever, pneumonia, diabetes, blood poisoning, erysipelas, venereal diseases, malaria, tuberculosis, all have been eradicated or brought under reasonable control, while infant mortality has been reduced 50 to 60 per cent, and the span of life raised from 48 years to more than 60 years.

The accomplishments of surgery have been at least as great and certainly more spectacular than that of medicine. Wounds once regarded as mortal are no longer mortal. The lame have been made to walk, the blind to see, the causes of many acute abdominal conditions have been found and a procedure formulated for their relief. Many conditions which in the past harassed the aged and made them want to die have been conquered, and we can look toward old age with greater complacency than ever before in the history of the world; but we have not reached medical perfection. There are yet many medical and surgical problems to conquer and what we have attained through rigid sanitation, and the application of all careful and painstaking research and through preventive measures must be maintained.

Cancer, arthritis, deafness, paralysis and cardio-vascular-renal diseases and many other conditions still abide with us.

On the eve of its second anniversary civic luncheon November 20, 1942, Cleveland Health Museum received its first truck loads of exhibit material presented for the duration by the American Museum of Health, New York City. These accessions were selected from the Oberlander Trust Collection and others displayed in the Hall of Man and Medicine at the New York World's Fair.

TREATMENT OF PERFORATED PEPTIC ULCERS

Report of Thirty-One Cases

MURL M. HAGOOD, M.D.

Marietta

In the treatment of acute perforation of peptic ulcer neither the immediate nor the late results is wholly satisfactory. There is a high immediate mortality and a distressing subsequent morbidity; yet, considering the percentage of deaths when the condition is neglected, one is heartened by the fact that a majority of lives are saved by surgical treatment. The immediate mortality in acute perforation is dependent on many factors, namely, the interval between perforation, the type of operation, and the age and condition of the patient. Subsequent morbidity follows perforation, largely because in most instances the risk to life is such as to prevent the surgeon doing anything toward the cure of ulcer at the time of operation, the use of drains, and the soiling of the peritoneal cavity.

From 1937 to 1942, there were admitted to the Marietta Hospital a total of 31 cases of perforated peptic ulcers. The admissions ranged from one patient a year to six in one month. Dr. T. C. Davison states that admissions at Grady Hospital, Atlanta, vary from one patient a year to 26 patients in different years. No satisfactory evidence for this seasonal tendency of peptic ulcers to perforate has been offered.

In the Marietta Hospital series there were no females; all patients were adults with the ages ranging from 23 to 69 years. There were 26 whites and 5 colored patients in this series. Three whites and one colored gave a history of having previous perforated peptic ulcer, while one white gave a history of three previous perforations.

The gross mortality of the series is 12.7 per cent; 27 patients recovered and four died. Thompson reports 424 cases where surgical treatment was used with a mortality of 28.7 per cent, and in 76 cases where non-surgical or expectant treatment was used and the mortality was 98.6 per cent the recovery of only one patient. Patterson

Read before the Seventh District Medical Society, Dalton, April 1, 1942.

reports a series of 35 cases with a mortality of 11 per cent. In Eliason and Ebling's collected American and European series of 5,061 cases, the average mortality rate was 23.9 per cent. Davison and Rudder in an analysis of 155 cases occurring at the Grady Hospital in Atlanta, reported a mortality rate of 28 per cent.

The interval between perforation and operation long has been known as one of the important factors which concerns mortality and one which is impossible for the surgeon to control. The highest per cent of patients that recovered were those operated on within six hours after perforation occurred.

In the Marietta Hospital series the cases were divided into four groups:

TABLE 1

Time from perforation to operation:

Hours Elapsed	No. Cases	No. Deaths	Mortality
1-6	23	0	0
7-12	4	2	50%
13-24	3	2	66%
24 plus	1	0	0

In the first group the perforation had existed 6 hours or less; in the second from 7 to 12 hours; in the third from 13 to 24 hours; and in the fourth, 24 hours or more. The most important point in reviewing these statistics shows that no mortality occurred when operation was performed within the six-hour period. Of the 23 cases, 14 occurred in Marietta and were operated on within 3 hours.

Immediate clinical results were not entirely satisfactory; 22 or 80 per cent of the patients were observed for periods ranging from two months to four years. Among them, 12 or 54 per cent obtained complete relief after operation, where 7 or 32 per cent required medical treatment and 3 required further surgical treatment. In 3 cases re-perforation of their peptic ulcer occurred, and in 2 hemorrhage took place.

The type of surgical procedure done in the majority of these cases in this series was a simple suture of the perforation, reinforced by a tag of omentum over the perforation or if the perforation and surrounding ulcerbearing area was large, a muscle graft was taken from the rectus muscle and sutured over the indurated and inflamed

area. The following table shows the type of operation employed:

TABLE 2
Operative procedure

Operation	No. Cases	No. Deaths	Mortality
Simple closure	26	3	1.2%
Excision closure	2	0	0
Gastro-enterostomy	2	1	50 %
Pyloroplasty	1	0	0

TABLE 3

Complications that were encountered:

Hemorrhage	2
Generalized peritonitis	4
Pneumonia	3
Evisceration	2
Subphrenic abscess	1
Psychosis	1

One patient that recovered developed a subphrenic abscess; then, following drainage, eviscerated, and later developed a toxic psychosis which cleared up two months later.

In the preoperative treatment of these patients admitted in a poor condition, in shock, with cold clammy skin, weak pulse and low blood pressure, their bloods were typed and matched for transfusions while the operating room was being prepared and they received blood transfusions before and during their respective operations. No deaths occurred on the operating table, and the majority of the patients left the operating room in better condition than when they entered. In three cases, where gross soiling of the peritoneal cavity had occurred, no drainage was employed and sulfanilamide powder was instilled into the abdomen. No deaths occurred in these 3 patients, although one developed a generalized peritonitis.

Postoperative treatment consisted of nothing by mouth for 24 hours, morphine freely, fluids intravenously, blood transfusions when indicated, and on earlier appearance of the signs of shock and while the patient was in good condition and not moribund. On the second day half-ounce of sterile water was given every hour and the continuance of intravenous fluids. If signs of distention occurred a Levine tube was inserted in the stomach. On the third day an ounce of sterile water was given every hour, and 2000 c.c. of 10 per cent glucose given daily. On the fourth day small amounts of strained cereal, orange juice, and a cooked custard

were given, and water freely. On the fifth day a first-stage Sippy diet was started.

The majority of these cases were not drained after operation: only four were drained and in these instances the perforation had existed over 12 hours. The recent tendency is in the direction of employment of less and less drainage, except where a purulent peritonitis is present. However, there is a wide diversity of opinion among surgeons as to drainage in acute perforation of peptic ulcers: some drain always, some drain late, and some never drain, and all have good reasons to substantiate their respective positions.

Report of Case

A white man, aged 57, was first seen Aug. 5, 1937. He gave a history of being suddenly seized with severe abdominal pains following a heavy Sunday dinner. He stated that in 1926 he was operated on for a perforated peptic ulcer and following the operation he was symptom-free until 1929, when he had a severe hemorrhage from his stomach. He was placed on Sippy treatment and stated that he has been under medical treatment since 1929 for an active peptic ulcer. On examination, he was in shock, with cold clammy skin, weak pulse, and shallow respiration; and blood pressure 80/40. A diagnosis of perforated peptic ulcer was made and he was admitted to the Marietta Hospital. While the operating room was being prepared, his blood was typed and 500 c.c. of citrated blood were started. The operation was performed and a perforated ulcer in the pyloric region of the stomach was closed and a tag of omentum sutured over it. He made an uneventful recovery and was transferred home in ten days. The patient remained symptom-free for six months and then began to complain of nausea and epigastric distress. He was placed on medical treatment and did fairly well until March, 1939, when the ulcer perforated again. He was operated on within a few hours after the perforation and a large perforation of a pyloric ulcer was found. The ulcer was excised and a pyloroplasty was done. He remained symptom-free until November, 1940, when he began to have epigastric distress, tarry stools, nausea and vomiting. His symptoms did not subside under medical treatment and he steadily grew worse until he was vomiting nearly everything he ate. X-ray examination of his stomach revealed a distorted pylorus with nearly a complete pyloric obstruction. Within three months he had lost sixty pounds and weighed 128 pounds on admission. He received several transfusions and in February, 1941, the abdomen was opened and a large inflammatory mass was found in the pylorus and the prepyloric region. The mass was firmly adherent to the liver, gall-bladder and pancreas, and therefore could not be resected. The distal third of the stomach was closed by silk sutures and a gastro-jejunostomy was done.

The average hospital days of this series of patients was 13.5 days: the longest 42 and

the shortest 7. The disability of this group of men, graded by their ability to return to their usual work, was 9 weeks.

Conclusions

From this analysis of the results of the treatment of 31 patients with acute perforation of peptic ulcer several conclusions may be drawn:

1. The mortality rate is lower (approximately 12.7 per cent) than is generally reported because the majority of these patients were seen early and the majority were operated on within six hours.

2. Mortality is lowest when operation is performed within six hours, when no drainage is employed, when the operation consists of suture of a tag of omentum over the closed perforation and when multiple blood transfusions are employed.

3. In cases of perforated peptic ulcer, where purulent peritonitis is present, the instillation of sulfanilamide or sulfathiazole powder into the abdomen reduces the mortality.

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Stuttering has been described as a device to prevent stuttering. Gertrude E. Chittenden, Iowa City, points out in *Hygeia, The Health Magazine* for January. "This definition may seem paradoxical at first," she says. "The stutterer does not really stutter on a word; he stutters before he comes to it. That is, his stuttering is an attempt to keep from having to say a word that he is afraid to start. He is stalling. He fills in this period of stalling with repeated syllables, much as you and I use the prolonged 'a-a-and-uh' device when we are groping for the next word. The straining and the repetitions are reactions by means of which the stutterer tries to avoid saying the next word.

"You probably would have a hard time getting a stutterer to admit this. He would insist that he is trying his best to say a word not to avoid saying it. However, objective evidence points in the other direction. . . ."

Miss Chittenden explains that a fear of words can be built up if the speaker has at some time or other noticed a reaction of listeners to his speech that has made him self conscious about talking.

"Often the parents who are concerned about their children's speech are parents who set up high standards in general for their children," she observes. "Perhaps lowering some of these standards would relieve the child of much emotional strain. Of course the general physical and well-being of the stutterer should be checked, and any physical defects should be remedied if possible. . . ."

RECURRENT CONVULSIONS AND ALLIED DISORDERS

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Recurrent convulsions and allied states are among the most frequent of neurologic complaints. In the draft during the first World War, a limited age group, the incidence of seizures was one-half per cent, equal to that of diabetes and tuberculosis. On this basis it has been estimated that there are over a half million cases in this country which is undoubtedly an understatement. Such an incidence forces our attention. While largely a problem of childhood and adolescence, these conditions may begin at any age and in persons of all grades of intelligence and social status. Attacks may occur only at intervals of years, or many times daily.

In spite of a great deal of research there are still many unsolved problems in our understanding of these syndromes. In a brief discussion such as this, I shall have to deal with these in a rather dogmatic manner. There is also a common belief that these conditions are uncontrollable. I wish to emphasize, however, that the continued repetition of attacks is often due to neglect or inadequate treatment. For any possibility of cure, prevention of the attacks over a long period of time is necessary. Otherwise, repeated damage to the brain results eventually in brain atrophy, and the so-called convulsive habit. Treatment must be instituted early and adjusted to the individual, as indicated by repeated examination.

These syndromes have been spoken of as the sacred disease, falling sickness, epilepsy, paroxysmal disorders and now cerebral dysrhythmia. They include a variety of disorders characterized by a sudden and recurrent disturbance of function of some part of the nervous system for a brief period. The disturbance may vary in type between a severe motor convulsion, a periodic mental disturbance, or a transient visceral disorder.

We know today that in such attacks there

is a violent disturbance in the discharge of nerve impulses from groups of nerve cells — such impulses being faster than normal, slower, or irregular — a true dysrhythmia of neuronal discharges. This has been shown by tracings of the electrical discharges from the brain during attacks (electroencephalography) and proves that all such attacks are due to a marked functional disturbance in the brain.¹ Similar irregularities of short duration may be found between attacks. Such dysrhythmia has been shown to be constitutional and hereditary in many cases, but is often too mild or short-lasting to be revealed by any symptoms. In fact, cerebral dysrhythmia occurs in twenty-five times as many persons without seizures as those with seizures.² Such individuals are silent carriers of this fundamental basis of attacks. Incidentally, they attest to the futility of sterilization of patients with attacks as a means of eliminating these conditions. In some cases this hereditary dysrhythmia, indicative of a metabolic disorder within nerve cells, seems to be the sole or major cause of attacks. There is another large group in whom organic lesions of the brain are present. Do the latter patients also have an hereditary dysrhythmia preceding the development of their brain lesion, such as injury or tumor? This question has not been answered, but it does not seem that this would be necessary as such lesions alone produce disturbances in neurone discharges. In some cases, these abnormal discharges arise consistently from a localized area in one hemisphere; more often, they arise from different foci at different times, or even from bilateral areas simultaneously.

There are three common types of seizures. First, the major convulsion or grand mal. The character of such convulsions is familiar to you all. During such attacks, the electroencephalogram shows a sudden outburst of rapid waves of electrical discharge of greatly increased voltage. The rate increases from the normal 10 per second, to 20 or more per second, and the voltage from 50 microvolts to 150. Following the attack, in the stage of stupor, all electrical activity ceases. Such cases often show brief surges of fast waves in their encephalo-

gram between attacks.

The second common type of attack, petit mal, is characterized by a brief loss of consciousness, without convulsive movements; there may be conjugate movement of the eyeballs upward and some twitching of the eyelids. Attacks are more frequent than grand mal, sometimes a hundred or more daily. They may be easily precipitated by over-breathing and are inhibited by strict attention. They are characterized in the encephalogram by alternate slow and fast waves of increased voltage producing an alternate spike and wave, characteristically three times per second.

The third most common type is called a psychomotor attack, and is often mistaken for hysteria. In such an attack, the patient carries out more or less complicated movements and inappropriate actions, may talk foolishly, attempt to answer questions and may not appear markedly abnormal to casual observation. At other times, the behavior is obviously abnormal, such as undressing in public places. After the attack, which may last for a few moments to several hours, the patient has no memory for that period. These attacks are characterized in the encephalogram by very slow rounded or saw-toothed waves of increased voltage, about 2 to 6 per second.

There are still other paroxysmal nervous disorders of similar nature. We may include here brief sensory disturbances such as thirst, nausea or dizziness; brief vasomotor and visceral disturbances; recurrent mental dullness or mood disorder, such as irritability; finally myoclonic twitches, especially common in the early morning; these consist of a sudden single jerking, as of an arm, often resulting in throwing articles such as a brush or comb across the room.

Etiology

In an important group of these cases there is evidence from the history and examination of an organic disease of the brain, and our first effort in diagnosis should be aimed to determine this fact. This may require repeated neurologic examination, spinal fluid study, skull x-ray, pneumoencephalography and if available electroencephalography. In a cooperative

review of over 2,000 cases, such evidence was found in 22 per cent.³ There is no disease of the brain which may not be accompanied by such attacks. In infancy and childhood common types include congenital defects of development, hydrocephalus, birth injury and febrile thrombosis with hemiplegia. In adolescence the majority of cases are cryptogenic, but with increasing age, brain trauma and neoplasm increase. In old age arteriosclerosis and neoplasm predominate. Rarer causes are encephalitis, multiple sclerosis and other degenerations. Neurosyphilis, both congenital and acquired, is also a common cause.

Seizures occur in about 35 per cent of all cases of cerebral tumor, and a verified tumor occurs in about 5 per cent of cases presenting such seizures. Attacks may occur years before signs of tumor appear. In regard to brain injury, studies from the last war showed that with penetrating wounds of the skull, attacks developed in 15 - 20 per cent.⁴ Those developing within the first two years had a more favorable prognosis, and indicated a remedial surgical lesion; those developing later had a poor prognosis. Without dural penetration, only 5 per cent of skull injuries developed attacks.

In the remaining cases there is no evidence of disease in the brain. We speak of these as cryptogenic. In such cases one should consider possible factors outside the brain. However, it is rare to find anything which can be considered other than an aggravating, or occasionally precipitating factor. In the cooperative study mentioned above — in only 0.9 per cent of cases could such a factor be determined. The most common extra-cerebral factors known to influence the discharge of the nerve cells, are of a physicochemical nature. Those which tend to induce attacks include alkalosis, cerebral edema, hypoglycemia, oxygen deficiency and certain ionic changes — decreased calcium and increased chloride.⁵ Few of the conditions often proposed as the basis of attacks produce such changes. Let us briefly consider some of these possibilities:

Certain disturbance of circulation may be associated with seizures. These include carotid sinus syndrome (in a recent survey

this was found to be important in only 9 of 1,000 cases of the convulsive syndrome⁶). Stokes-Adams syndrome with heart block, and rarely paroxysmal tachycardia. Penfield⁷ in his numerous observations of the brain during attacks has disproved a former belief of constriction of cerebral vessels, in these attacks; on the contrary, blood flow in the brain is increased during attacks. There is no lesion or dysfunction of the gastro-intestinal system of significance in this syndrome. Except for the occasional convulsion occurring in thoracentesis, there is no lesion of the respiratory tract producing recurrent attacks. Dysfunction of the thyroid and pituitary may be associated with these syndromes but are not of etiologic importance. Therapy of such disorders does not alter the convulsive syndrome and is not sufficient treatment of the patient. Pancreatic disease with true hypoglycemia, and tumor of the adrenal producing paroxysmal hypertension, are rare but important causes and should receive careful consideration. Attacks often precede menstrual periods, and this may be explained by premenstrual edema of the brain, but ovarian therapy or removal is seldom if ever effective by itself. Other somatic lesions can be dismissed as casual factors, and promise of cure by tonsillectomy, circumcision and such procedures is unjustified. In a small group of these cases allergic sensitization has been shown to be of definite importance as an etiologic factor. Studies of the metabolism have shown no specific disorder. The basal metabolism, blood and spinal fluid minerals, blood proteins, fat metabolism, water metabolism, acid-base balance and vitamins show no abnormal changes.

In any patient subject to seizures, certain factors are of importance in precipitating attacks: such factors are fatigue, alcohol, emotional upsets and menstruation. Constipation has long been emphasized, but greatly overstressed. We must conclude that these syndromes depend upon a functional disturbance in the brain, due to an organic brain disease, a constitutional dysrhythmia, or rarely a general disorder of physicochemical nature.

Prognosis

The prognosis depends on the disease of

the brain which may be present, and also on the type of treatment. In the cryptogenic type remissions occur in 10 to 20 per cent of cases, and may last for years. Occasionally such a remission follows some unscientific procedure. Most frequently a remission occurs in late childhood and lasts until puberty or later. Since we cannot predict a remission, it is our duty to treat these patients for at least 4-5 years and preferably for life in an effort to prevent the attacks. The exception to this is where attacks are many years apart. Unfortunately, many physicians hesitate to prescribe drugs in these cases from a fear of producing a drug habit or toxic disorders. Drugs are often given in insufficient amount or so irregularly that little benefit is received. Other patients are indifferent and stop regular medication. It has been estimated that from 4 to 10 per cent may be cured; cryptogenic cases beginning in adolescence are the most favorable.

Treatment

Surgical treatment is indicated for certain lesions of the brain, such as tumor, hematoma, abscess, hydrocephalus, traumatic scar, or localized atrophy. We must endeavor to diagnose such lesions by all possible means. In the determination of these lesions, the first step is an accurate description, or better, actual observation of the attack. The attacks should be analyzed according to our knowledge of the phenomena which occur with stimulation of individual areas of the cerebral cortex. The initial phenomena of the attacks indicate the focus of irritation. Surgical removal of the lesion, however, does not always stop the seizures. Where no gross brain lesion is present, cortical excision may be considered if the attacks are of focal type. That results are not too successful is indicated by the fact that patients are usually kept on medical treatment for 3 years postoperatively. Surgical treatment, however, may render attacks controllable by drugs which were previously resistant.

Bromide, mebaral, phenobarbital and dilantin are the most effective drugs. Phenobarbital is most commonly used. It produces a slowing of the fast waves. While toxic reactions have been reported, they are uncommon.

mon. The drug should be used in sufficient amount to control the attacks, up to 4.5 grains daily. Rarely this dosage may be exceeded. It should be regulated according to the time of attacks; thus with nocturnal attacks, the drug may be needed only at bedtime. The proper dosage should be continued indefinitely. If drowsiness is produced, this may be counteracted with small doses of benzedrine.

In some cases mebaral is more effective than phenobarbital. It may be given in 3 grain tablets two or three times daily. Bromides are also effective, and may be best in cases of petit mal. They are well tolerated by children. However, the development of skin eruptions may make them undesirable. When used over prolonged periods, occasional blood bromide determinations should be made, keeping this under 150 mg. per cent. Otherwise, cumulation may cause mental sluggishness or delirium.

The development of dilantin sodium, (diphenylhydantoinate) the first drug to come from experimental work marked a definite therapeutic advance. This has a specific effect on motor nerve cells, and its use does not produce mental sluggishness or stupor as the other sedatives. It has controlled attacks in many cases previously uncontrollable. The average dose in adults is 1.5 grains three times a day, but may be used up to 7.5 grains daily. It is more toxic than the barbiturates, producing in some persons, skin lesions, hypertrophy of the gums, dizziness, staggering gait and gastric distress. It should seldom be used as an initial treatment and is most effective in psychomotor seizures. Other drugs, as certain dyes, are occasionally helpful in severe cases. All drugs should be increased up to a certain maximum, unless toxic reactions occur, before concluding that the attacks cannot be completely prevented.

One danger to be avoided is abrupt withdrawal of these drugs, as this may result in status epilepticus. After the patients have been free of attacks for 2-3 years, the dosage may sometimes be gradually reduced. In cases not controlled with large doses, one would be suspicious of a cerebral neoplasm or other active lesion.

There is no basis for any special diet ex-

cept the ketogenic diet. This is most beneficial in children with frequent petit mal and without signs of organic brain disease. Restriction of fluids has seemed to be of importance to some, but has largely been discredited.

The constant dread of recurrence of these seizures, embarrassment, social failures, all lead to severe emotional reactions. Psychotherapy is always necessary and may be the most important part of treatment. Much time must be spent in counteracting misconceptions of the nature of the disorder, in order that the patient may have a proper understanding of his condition, accept it with equanimity, continue proper treatment and make normal social adjustments. Physical and mental activity tend to prevent attacks, as does the maintenance of interesting work or play.

There are important social problems involved in these conditions. Rejection of such patients by the armed forces is obviously necessary. Traffic accidents are not uncommonly a result of attacks, and in some states drivers' licenses are not obtainable by these patients. This has been neglected in Georgia but until prohibited by law, patients should be urged to stop driving. While many patients hold important positions of responsibility, others have great difficulty in getting any type of employment, even clerical work, if their condition is known. This is due to the increasing extension of compensation laws and produces much hardship which is unjustified. There should be some adjustment of the law to take care of this problem. In a few communities special workshops have been established where these patients can earn a living. For the relatively few cases with uncontrollable attacks, it is unfortunate that Georgia still lacks a special state institution where they may be studied and cared for. Children having seizures and also mentally defective are refused admission to Gracewood, depriving them of needed training.

In conclusion, recurrent convulsions and allied states present a frequent problem of great medical and social importance. A few of the problems and present viewpoints have been presented. Attack along many lines is progressing, thanks to the Interna-

tional League Against Epilepsy and the Laymen's League Against Epilepsy. This latter organization, which enlists interested laymen for a nominal sum, is contributing to research funds and performing a useful service in disseminating authentic information.

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THE TREATMENT OF SCABIES

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Parasitic skin disease, although more common in dispensary practice, is frequently encountered in private practice. Endemics and even epidemics have been described. Pediculosis and other parasitic diseases have occupied a prominent part in wartime medicine. Knowles¹ in 1918 reporting on 2,000 dermatologic cases seen in the armed forces, noted that a total of 1,500 were due to scabies or a pyoderma secondary to parasitic skin infection. Numerous remedies have been recommended and used with varying degrees of effectiveness. We believe it may be of interest to review the various antiscabietic remedies, comparing their mode of application, desirability and effectiveness.

Scabies may often be treated effectively with great ease, and on occasions presents a very troublesome problem. Many patients with generalized itching seek help, first from the neighborhood druggist: they are usually given some form of scabicide. Should the patient happen to have scabies, his symptoms may be relieved. Many of the scabicides offered, however, do not have the proper directions and reinfection is therefore common. The scabicide is fre-

quently used over and over again until the patient becomes discouraged or a dermatitis appears which will eventually bring the patient to his physician, together with other members of his family, who in the meantime have acquired the disease.

Scabies is caused by the mite known as the *Acarus Scabei*. This was first observed by Bonomo of Italy in 1687. Many remedies have since been employed for its treatment. Betanaphthol, balsam of Peru, tar, styrax and several of the essential oils have been used with excellent effect. Preparations containing sulphur are the most widely used remedies for the treatment of scabies. The sulphur ointments which are employed as a rule have no therapeutic advantages over each other except for the variation of the ointment base, one of which may be more pleasing to the patient because of its consistency or vanishing cream effect. In Grady Hospital clinics, Atlanta, sulphur in petrolatum or in benzoinated lard has been prescribed for the treatment of scabies for many years. The strength varied from 5 to 10 per cent. Patients in the clinic are given a prescription for the sulphur ointment and a card with the following directions:

1. You have a contagious disease. Do not sleep with anyone that is not affected.
2. Follow directions carefully. Rub in the ointment given you from the neck to ankles every night and morning for three days.
3. No baths during this time.
4. At the end of the three days stop using the ointment, take a warm bath and change to fresh underclothes, sleeping clothes, sheets and pillow slips.
5. Boil all used bed linen, underclothes and sleeping clothes.
6. Rub your body well with vaseline, oil or lard and return to the clinic in three days.

Recently a total of 36 clinic patients, including children and adults, were treated by this method. Twenty-three were colored patients. In five patients of this group, two courses of treatment were required for complete cure. There was no evidence of dermatitis following this treatment. In the 13 white patients, only in one was it necessary to repeat the treatment. Two patients, however, showed a mild dermatitis. In four patients a moderate dermatitis ensued. The dermatitis was present in five adult males and in one child. The sites most frequently

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affected were the hairy areas such as the groin and axillae. Pulling on the hairs while applying the ointment and friction from clothing in these areas may have accounted for some of the irritative effect. True sensitivity to sulphur was not likely since no patient showed a generalized dermatitis. Sensitivity to sulphur, however, must be watched for. Seventeen per cent reactions were encountered in this series treated with sulphur ointment. Among the white patients alone, this would be 46 per cent, which was an unusually high incidence.

A group of 84 private patients were treated with 10 per cent sulphur ointment. Thirteen patients, or 15 per cent of this group, developed a dermatitis venenata as a result of treatment. Six patients were required to repeat the course of treatment. Patients in private practice find antiscabitic treatment with sulphur objectionable. There is a certain amount of discomfort in using an ointment for three days in succession without taking a bath. The economic loss, time off from work and damage to clothing and bed linen are among the disadvantages of this method of treatment.

In 1937 Commander Roger A. Nolan, M. C., United States Navy,² introduced a new form of sulphur treatment for scabies. A bland soap paste containing flowers of sulphur 18 per cent was applied in gauze foam pads. This procedure was repeated for three days with daily changes of underwear. This treatment was found to be effective and had certain advantages. The damage to clothes and bed linen and the discomfort due to ointment base vehicles were absent in the gauze foam type of treatment. Individuals who were undertaking treatment did not necessarily have to lose time from their employment. There was less dermatitis since the lather contained less sulphur per body surface area than the conventional sulphur ointment. Each pad contained enough sulphur soap for one application. Usually three such applications were found to be sufficient for cure.

In our clinic 15 white patients, two of whom were children, were treated with sulphur foam applicators. One adult male required two courses of such treatment. Three patients developed moderate dermatitis on

the pubic and abdominal surfaces. These two patients were treated by other drugs to avoid further inflammatory reactions.

Even though the sulphur foam treatment is considered an advance as compared to the ointment, many patients complain of a certain amount of discomfort from the dried lather. The freeing and separation of sulphur granules permit instant individual activation when in contact with a weak alkaline solution. This activation is continued when brought in contact with the alkaline external secretions of the skin. Hydrogen sulphide gas is produced, this being lethal to the itch mite. The unpleasant odor which is produced may also be objectionable to the patient.

Recently Rotenone (C₂₃ H₂₂ O₅)³ has been introduced as a new form of anti-scabitic treatment. This is derived from derris root or from South American cube root. It is supplied as a lotion known as Ronone. This is to be used in the following manner: The patients are instructed to take a warm bath and then to apply the lotion over the affected areas for two to four days. The usual prophylactic measures are also advised. Epstein⁴ on reporting on 50 cases described the results as excellent. The advantages were negligible odor and low incidence of reaction. The full strength preparation was well tolerated by children. He reported 15 per cent failures. We treated eight patients by this method with no failure.

Benzylbenzoate for the treatment of scabies has been used abroad for many years with favorable results. Kissemyer^{5,6} reported favorably on 8,000 cases of scabies treated with benzylbenzoate. A total of 112 patients were treated by Vellin⁷ with complete cure. In the American literature, Goldman⁸ reported favorably on the use of this preparation in the treatment of scabies. In a recent report in the Latin American literature, Najera and Bernabe⁹ showed that 52 patients suffering with scabies were cured with one application. Two applications were necessary for a complete cure in 28 patients. No case failed to respond. This form of treatment is well tolerated by women and children without the production of any severe dermatitis. Only occasionally

on sensitive skins may a mild eruption develop. In infants under one year of age, a slight rise in temperature has been noticed which was probably due to the systemic absorption of benzylbenzoate.

In the beginning we used benzylbenzoate incorporated in an ointment base. The following formula was used:

Benzylbenzoate	100.0
Hydrous wool fat.....	32.0
Glycerol monostearate	15.0
Cellulose	25.0
Triethanolamine	6.0
Carbitol	6.0
Glycosterin	37.0
Water	206.0

tion most frequently used abroad and recommended by the British Army is as follows:

Benzylbenzoate
Denatured alcohol
Soft soap aa

This formula is easily prepared and very effective. A very similar proprietary formula is available on the market.

Benzylbenzoate	30%
Soft soap	22%
Alcohol (by volume).....	50%

This preparation was used on 24 patients (five children and 19 adults). All these patients were cured within 24 hours with no untoward reactions. The patients were in-

COMPARATIVE CHART

<i>Patients</i>	<i>Treatment</i>	<i>Repeated Rx necessary in</i>	<i>Dermatitis developed in</i>	<i>Average time for cure</i>
CLINIC CASES				
23 colored	Sulphur oint.	5 cases	None	3 days
13 white		1 case	6 cases	
PRIVATE CASES				
84 white	Sulphur oint.	6 cases	13 cases	3 days
	Sulphur foam applicators	1 case	2 cases	3 days
15 white				
8 white	Rotenone lotion	None	None	4 days
	Benzylbenzoate ointment	None	None	3 days
31 white				
	Benzylbenzoate lotion	None	None	1 day
24 white				
TOTAL 198				

This formula we found less objectionable than the previously used sulphur ointment. The salve is more or less odorless and the ointment base is not very greasy and does not soil clothing. The directions for the usage of this ointment were the same as those used in the full course sulphur treatment.

We treated 31 patients with the above benzylbenzoate cream. All patients were cured and there were no cases of dermatitis venenata from treatment. Three patients had a dermatitis from sulphur ointment before the benzylbenzoate treatment and all improved considerably after the benzylbenzoate applications. A very satisfactory lotion containing benzylbenzoate, a prepara-

structed to take a bath with soap and water and while the body was still damp to apply the lotion to the entire body except head and neck. They were instructed to apply the lotion vigorously for five minutes with a paint brush or a pig bristle shaving brush. After the first application had dried they were advised to apply a second coating, particular attention being paid to the involved areas. Instructions as to washing of clothing and linen were also given to prevent reinfection.

We found it safer to repeat the treatment twice in 24 hours instead of depending on one application. Patients were allowed to treat themselves in the morning and evenings of the same day or if the first treat-

ment was taken at night it was to be repeated the following morning. Each treatment requires four ounces of lotion, therefore eight ounces were prescribed for each patient.

Because of the high concentration of benzylbenzoate the lotion will separate into two layers if it is kept below 70° F. The patient should, therefore, be advised to remove the cap from the bottle, warm the lotion to body temperature and shake it before using. This will redissolve any separated benzylbenzoate.

We found that secondary pyogenic infections were no contraindication to treatment in any of the above methods. Some pruritus may be present after a full course of treatment, especially in neurotic individuals or those in whom a pyoderma or dermatitis already exists. Pruritus does not justify a repetition of the course of treatment unless scabitic burrows can be seen.

Summary

One hundred and ninety-eight patients with scabies were treated with various scabicides. The preparations used were sulphur ointment, sulphur foam applicators, rotenone lotion, benzylbenzoate cream and benzylbenzoate lotion. Benzylbenzoate lotion proved to be the most effective.

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Pulmonary tuberculosis rarely develops in an individual after thirty-five if at that age the roentgenogram shows no evidence of the disease. In spite of this we should keep in mind the fact that the mortality rate from tuberculosis is highest in the older age groups. The highest rate for men is after age fifty; for women the rate is almost as high in the sixties as it is in the twenties, and highest of all in the seventies. Therefore, we should give more attention to the later years of the life line and not feel so self-satisfied when we roll up impressive clinic figures which, if analyzed, would show that the total was to a great extent made up of children. The oldsters will yield a greater percentage of tuberculosis for number examined than will the youngsters. These individuals are shy, however, and it requires more will and persistence to lure them into the clinic's net. From "the Modern Attack on Tuberculosis" by Chadwick and Pope, published by The Commonwealth Fund, New York.

FAINTING

EUGENE A. STEAD, JR., M.D.
Atlanta

Fainting, or syncope, is a very common symptom both in sick and in well persons. I wish to discuss fainting which occurs in persons in whom the usual physical examination and laboratory findings reveal nothing abnormal. We will exclude fainting which develops as a secondary manifestation in anemia, heart disease, dehydration, Addison's disease, and other obviously pathologic conditions.

Several weeks ago a student nurse was admitted to the Grady Hospital because of repeated attacks of syncope. She had fainted occasionally in the past, but recently the attacks had become so frequent that she was afraid she would be dismissed from the Training School. The attacks of fainting were preceded by sensations of light-headedness and unreality, and by a tingling feeling down the arms and the inner surfaces of the thighs. Her hands and feet became cold. The syncope occurred only when she was standing or sitting—never when she was lying in the horizontal position. Moreover, when she lost consciousness and fell down, the attack subsided quickly. Neither the prodromal sensations nor actual fainting had ever occurred during vigorous exercise. She had had no disturbances during sleep.

Physical examination was entirely negative except that a considerable rise in heart and respiratory rates occurred during the examination. Pressure of either carotid sinus produced a slight fall in blood pressure, but did not reproduce any of the sensations of which she complained. On motionless standing the heart rate increased, but there was no significant drop in blood pressure. Nevertheless, after a few minutes of such standing, syncope occurred and the patient had to be lowered to the horizontal position. In this position she recovered consciousness in a few seconds. After a period of five minutes the patient was instructed to sit up and breathe as deeply and rapidly as possible. She quickly complained of giddiness, of cold hands and feet, and of a tingling feeling down the arms and inner surfaces of the thighs. After thirty seconds of hyperventilation, fainting occurred. Again the patient recovered consciousness quickly in the recumbent position. She stated that the overbreathing reproduced exactly the same sensations which she had previously experienced.

The fact that she gave a history of the prodromal sensations of fainting in the recumbent position ruled out the diagnosis of postural hypotension, for patients with that syndrome are always normal when they are lying down. The increased pooling of blood which occurs in the upright position clearly played some part in this case, however, because the patient never lost consciousness when lying down. Carotid sinus syncope was ruled out because it was impossible to reproduce the attack by pressure on either carotid sinus at a time when the patient was having spontaneous attacks of syncope. Epilepsy was ruled out because of the lack of family

From the Department of Medicine, Emory University School of Medicine.

Read before the Fulton County Medical Society, Atlanta, Sept. 21, 1942.

history of that disease, the absence of attacks during sleep, the absence of typical tonic and clonic convulsive seizures, and because it was evident that posture always played some role in the precipitation of the unconsciousness. Final proof that hyperventilation and the upright position were the factors responsible for the fainting was obtained by the experimental production of the attack.

The sequence of events was as follows. The patient was an anxious individual who responded to a variety of stimuli by increasing the rate and depth of the respirations. This overventilation produced by emotional stimuli caused the carbon dioxide content of the arterial blood to decrease. The hydrogen ion concentration of the blood bathing the brain was decreased. This produced a disturbance of cerebral metabolism which the patient described as lightheadedness. This feeling of giddiness caused further anxiety and the cycle recurred with greater intensity. The respiratory rate was increased still further, and the feeling of lightheadedness, of numbness, and of tingling in the extremities became more severe. If the patient attempted now to sit up or walk, she lost consciousness because of the momentary decrease in cerebral blood flow caused by the pooling of blood in the portion of the body below the heart. Cerebral metabolism was thus altered by two factors: (1) change in hydrogen ion concentration, and (2) slowing of the cerebral blood flow by force of gravity. These physiologic factors were aggravated further by the patient's anxiety. Every time she fainted she became more worried, until finally even the slightest feeling of uncertainty was likely to precipitate an attack through fear.

The mechanism of her fainting was explained to the patient. No attempt was made to delve into the causes of her latent anxiety. It was explained to her that a variety of stimuli would cause her to breathe more deeply than was necessary for the needs of metabolism, and that whenever this took place she would feel lightheaded. She accepted the fact that once she had begun to breathe deeply symptoms would occur, but that they were physiologic and did not indicate organic disease. She was told that although she would undoubtedly have more prodromal symptoms, if she did not become frightened they would not progress to the point of fainting. This patient has had no further difficulty.

The second case is that of a 52-year-old tailor who complained of syncopal attacks of one week's duration. These attacks always occurred in the upright position, and he recovered consciousness promptly after he fell to the ground. He had a cold and a sore throat during the week preceding the onset of the attacks. Routine physical examination was negative. There was a moderate narrowing of the pulse pressure when the patient stood motionless. Hyperventilation produced lightheadedness, cold hands and feet, and numbness and tingling in the extremities; but the patient said that he had experienced none of these sensations preceding the spontaneous attacks. Pressure on the left carotid sinus caused no change. Pressure on the right carotid caused prolonged cardiac standstill with prompt loss of consciousness. The patient was given atropine for the next week. He had no further medication. When seen a month later, pressure on the right carotid sinus caused only slight slowing of the heart and no symptoms. His fainting attacks had been caused by overactivity of certain vagal reflexes due to acute infection. When the in-

fection subsided, the abnormal reflex sensitivity also subsided.

This case illustrates the point that the patient should be examined as soon after the attack of syncope as possible. The longer one waits, the less likely one is to determine the exact mechanism.

The third case is that of a 29-year-old man who first came to Grady Hospital in 1938 with the chief complaint of weakness. He stated that at the time of the onset of his present illness he ceased to sweat normally on his hands and feet when upright. He had repeated attacks of "swimming of the head", and everything would become black. As soon as he lay down his symptoms would disappear and except for the dryness of his hands and feet he felt normal. He was found to have diabetes, which required insulin for control. He continued to return to the clinic, stating that he was weak and faint and could not work. The interns rapidly lost patience with this apparently healthy young man who refused to work. When he came in they would tell him "Lie down and we will see you in a minute." Their examination never revealed any cause for weakness. Eventually the notes on the record became rather heated. I quote: "This poor example of manhood seems to show periodic attacks of insulin shock. Diagnosis: diabetes and mental deficiency." The end result of his visits was that he was finally admitted to the hospital in 1942 for regulation of his diabetes. Physical examination was entirely negative save for the lack of sweating of the hands and feet and for some disturbance in the perception of pain and temperature in the extremities. In the recumbent position his arterial pressure was 130 mm. of Hg systolic and 90 mm. of Hg diastolic. The pulse rate was 70 per minute. On standing up, the arterial pressure immediately began to fall and the pulse rate to rise. After three minutes, the arterial pressure, determined by palpation, was 60 mm. of Hg and the pulse pressure could not be obtained by auscultation. The heart rate was 114 beats per minute. The patient was rational. There was a gross tremor of his extended hands. He was not pale, and there was no sweating. In another minute the patient complained of things turning black, and his arterial pressure could not be obtained. He was lowered to the horizontal position and immediately recovered. The pulse and blood pressure returned to the levels recorded before he stood up. During the past two months there has been little change in his condition.

This is a patient with postural hypotension produced by widespread disease of the sympathetic nervous system. The diagnosis was made because of the knowledge that gross disturbances in the sympathetic nervous system are frequently associated with postural hypotension. When it was noted that this patient showed a disturbance in sweating, the importance of recording the arterial pressure in the standing position became evident. Many of these patients give a story of difficulty in shaving because of the tremor that occurs when the arterial pressure falls. I was surprised when this man said that he had no trouble at all with shaving. Closer questioning revealed, however, that since the onset of his present illness he had shaved sitting down because he had trouble seeing if he attempted to stand up and shave.

Postural hypotension occurs because of the failure of the blood vessels to constrict when the arterial pressure

falls. It does not result from the pooling of an abnormal amount of blood in the lower part of the body in the erect position, but from an abnormal response to the pooling of a normal amount of blood. It may be the only manifestation of disease of the sympathetic nervous system, or—as in this man—other functions of the sympathetic nervous system may be involved.

Whenever blood is removed from the trunk in these patients, there is an abnormal fall in blood pressure. It makes no difference whether the blood is removed by change in posture, by venous tourniquets, or by bleeding. There is only one condition under which these patients can stand without the occurrence of any abnormal reactions. That is in a swimming pool with the water at heart level. Here the increased hydrostatic pressure in the lower part of the body which normally causes a distention of the venous bed is exactly counteracted by the external pressure of the water. As the subject walks from the pool, the venous bed below the heart is no longer compressed by water. It responds to the release of pressure by distending with the force of gravity. Thereupon the patient's blood pressure falls to syncopal levels.

Space does not permit of the discussion of the many other causes of syncope. In conclusion, I would like to emphasize that the physiologic mechanisms causing fainting can frequently be determined. Even though the physical examination and laboratory studies prove to be negative, the examination of a patient complaining of syncope is not complete until the effects of hyperventilation, of pressure on the carotid sinuses, and of motionless standing have been determined.

One of the greatest deficiencies in tuberculosis control programs has been the failure to make sufficient use of case-finding techniques in discovering the elderly person with undiagnosed pulmonary tuberculosis. There is much evidence that the older individual suffering from this disease frequently escapes recognition, and may act as a spreader of tuberculosis in the community for many years. Elderly tuberculous persons whose disease has become more or less stabilized may be robust well-nourished and present an appearance of complete health. Many have only minor symptoms and frequently are able to work and to carry on a normal life. They often live out their natural life span, dying, not of tuberculosis, but of some entirely unrelated disease. R. E. Miller and Beatrice Henderson, *Amer. Rev. of Tuber.*, Aug., 1942.

Physicians in the older age groups who are left at home during the war to care for civilian needs, are on their toes to learn the new developments in medicine, according to the mid-month issue of the *New York State Journal of Medicine*, published Dec. 15, 1942.

Comparison of attendance this year with last at District Branch meetings of the Medical Society of the State of New York, covering the entire state and comprising postgraduate educational activities, shows, according to the *Journal*, that "bald and gray heads seemingly will carry on to the limit of their ability, always eager to learn that they may better serve."

SUBTOTAL GASTRECTOMY FOR PEPTIC ULCERS

LESTER HARBIN, M.D.

Rome

During the past few years the conception of the cause of peptic ulcers has changed, and a more physiologic approach to the surgical treatment of these lesions has resulted. We are now seeing a swing towards subtotal gastrectomy in preference to pyloroplasty and gastro-enterostomy. The rationale behind this change is that a subtotal gastrectomy will remove most of the acid-bearing glands of the stomach. Gastric hyperacidity plays a large part in the continuation of pain from ulcers, and in the past alkalies have been used as a satisfactory means of controlling ulcer pain. The same thing is permanently accomplished surgically by removing the acid-bearing glands of the stomach. The indications for surgery and the technic of the surgical procedure have changed little, but the type of operation has changed a great deal.

Subtotal gastrectomy is a formidable surgical procedure and should not be undertaken lightly. It is an operation which requires a rather long period of time to execute; a certain amount of inevitable spilling from the gastro-intestinal tract always invites infection, and lastly, the duodenal stump will at times blow out postoperatively and cause peritonitis. On the other hand, following such operation, patients are very comfortable, are less likely to have a recurrence of ulcer symptoms and the incidence of jejunal ulcers has been reduced from the former percentage of 6 to 7 following gastro-enterostomy to 1 to 2 per cent following subtotal gastrectomy.

Patients for this procedure must be selected with the utmost care. They should all be subjected to a thorough course of medical treatment, with rest in bed before any surgical procedure is considered. The indications for subtotal gastrectomy are: first, organic, duodenal or pyloric obstruction associated with a high gastric acidity;

second, persistent ulcer pain not relieved by medical treatment plus x-ray evidence suggesting a penetration of the ulcer into the pancreas; third, gastric ulcers that do not respond to medical treatment and gastric ulcers which bear the possibility of malignancy; fourth, recurrent massive hemorrhage from duodenal or gastric ulcers; and fifth, complications such as duodenal ulcers following previous gastro-enterostomies or other gastric surgery.

The preoperative preparation and the postoperative care of these patients are so important that I cannot pass them over without outlining a few details. Ulcer patients who have been on rigid diets for a long period of time often develop vitamin deficiencies, especially vitamins C and B. With a large amount of vomiting they also develop a fluid imbalance. These patients are prepared for operation by building up their fluid reserve, by supplying adequate amounts of vitamins C and B, and if necessary amino acids can be given intravenously or by mouth to help improve any protein deficiency which they might have. If the patients are anemic, transfusions are given liberally.

Following the operation a Levine tube is left in the stomach for a period of 48 to 72 hours to relieve any tension on the suture line and to prevent postoperative vomiting. At the same time fluids and blood transfusions are used liberally. Vitamins are continued subcutaneously. The improved methods of pre-and postoperative care in this particular branch of surgery have reduced the mortality from such procedures to a great degree.

Report of Cases

To date my series of cases has been small and consists of five subtotal gastrectomies with no deaths.

The first patient was a man 46 years of age who had had a ruptured duodenal ulcer one year before he had a subtotal gastrectomy. He developed a pyloric obstruction, with a retention, following his first operation and was unable to carry on any of his duties. Following a subtotal gastrectomy he was able to return to his profession as a truck driver and has continued in this occupation ever since.

Case No. 2 was a male 31 years of age who had an ulcer history of four years' duration. I had treated him for a period of one and a half years before his operation, and he had had a third retention of barium in his stom-

ach at the 24-hour interval one and one-half years before he consented to have this operation. He had been unable to work for two years but following his subtotal gastrectomy he returned to heavy work such as running a road machine, and later he returned to the cotton mill.

Case No. 3 was a man 42 years of age who had been coming to the Harbin Hospital for a period of 14 years for the treatment of his duodenal ulcer. He responded quite well to treatment from time-to-time, but recently a Sippy regime had failed to relieve his ulcer symptoms. He consented to have a subtotal gastrectomy and at the time of operation a very deep ulcer was found which had penetrated into the head of the pancreas. This accounted for his lack of pain relief from a Sippy diet. I was unable to remove his ulcer, but a subtotal gastrectomy was done, and he has been able to return to his former occupation as a storekeeper.

Case No. 4 was a colored man 42 years of age who came in complaining of vomiting. After a strict medical regime the vomiting was not relieved, and there was marked retention of barium in the stomach at the 5-hour interval. He was continued on the Sippy diet but this did not relieve the situation: in fact his symptoms became worse. It was my opinion that he had a duodenal ulcer, but at operation I found a large gastric ulcer with a functional pylorospasm. He has made a satisfactory recovery and is now working as an orderly in our hospital.

Case No. 5 was a girl 28 years of age with a very short history of gastric discomfort of the typical ulcer type. She was observed for a period of about 3 months and during this time she spent 10 days in the hospital on a strict ulcer diet. Her pain was relieved somewhat but she had a recurrence of her vomiting. The deformity of her duodenum was very marked. She was unable to recover sufficiently on a medical regime to return to work, and it was absolutely essential that she work in order to support her daughter. After 3 months of medical treatment she was advised to have a subtotal gastrectomy, and this was done. She has now recovered sufficiently to return to work.

After a period of regression between the two wars, the number of tuberculosis cases in Sweden is once more increasing, and the health authorities have launched a nation-wide anti-tuberculosis campaign. Mass radiography and vaccination with BCG are the foremost measures suggested. At first everyone who has anything to do with children, passenger traffic and foodstuffs would be subject to these precautions which would later be extended to women and adolescents in industry. News item from The Lancet, Oct. 3, 1942.

Tuberculosis remains predominantly a disease of adults in their productive years and cause invalidism, loss of earning power, expense of hospitalization and treatment. A. C. Reid, Jour. Industrial Hyg. and Toxicology, Oct., 1940.

Examinations by the American Board of Obstetrics and Gynecology will hold its next written examinations (Part 1) in various cities of the U. S. on Feb. 13. Arrangements will be made so far as possible for candidates in military service to take the Part 1 examination. For further information write the Board at 1015 Highland Building, Pittsburgh, Pa.

THE PRESIDENT'S PAGE

NEW YEAR GREETINGS

This is the first of a new year which seems to offer much more encouragement for success which will lead to hope for oppressed millions who are now without much hope in this war-torn world.

Information from all sections of Georgia indicates the people are experiencing difficulties in securing the services of physicians. Apparently they have not fully realized the added burdens placed upon the thinned ranks left behind to do not only our usual practices but also care for the many patients of our young men now engaged in war to maintain our freedom.

Lack of time, the rubber shortage and age prevent us from making many home calls. Office and hospital practice will suffice until our young men return. By all means make this clear through your county medical societies and local papers. Already some of our members have begun to fail under the load and have had to give up night calls. Others have retired.

Under existing circumstances it is necessary for us to work long hours, even when the bulk of practice is in our offices and hospitals. This fact makes it necessary for us to take some time off for rest and recreation. Some of our patients are cooperating in a most satisfactory way. Last night one called me stating that she had severe headache and asked what to do about it. After receiving instructions she said she would carry them out and asked me to visit her before going to my office this morning. While at breakfast another one stated that her husband had suffered severe chest pain since 4 A.M., and requested me to come as soon as possible. Surely this is considerate to an unusual degree.

Such plan wisely carried out amounts to a recharge of our vitalities which may enable us to carry the extra burdens. Some may foolishly reason that they are as good as ever but the fact that they are on the "home front" instead of the "battle front" contains the correct answer.

Remember your office assistants who are also working harder than usual just as you are. In many instances assistants should be secured for them.

WIVES — Well, if I were seeking some office I would write at length about them, but since I am not suffice it to say that they account largely for our achievements. Their abilities to operate so successfully in the background may account for the "back seat driver" era. Since that era has ended we may as well admit that they can beat some of us driving in the driver's seat. Anyway, they are overworked, too, so let's see that they get their recreations and diversions. Mine's chief diversion is window shopping. I recommend it.

Doctors spend their lives telling people how to resist diseases and keep physically fit. Too often it is through talk alone and not by example. Overworked, over-fed and over-weight will not offer convincing evidence of knowledges on how to live. It is not enough to think of our patients, helpers, wives and ourselves. The larger viewpoint of preventive medicine practiced so successfully through Public Health is ever more important now, therefore urge vaccinations, proper nutrition, sanitation and all other important preventive measures. In this way the good we do lives on.

JAMES A. REDFEARN, M.D.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

JANUARY, 1943

ANNUAL TREK OF MEDICAL STUDENTS FROM EMORY TO MICHIGAN INTERRUPTED BY WAR

More than one-third, or approximately 35 per cent, of the freshmen medical students at Emory University School of Medicine get into serious trouble. During the past two decades more than 24 per cent of them failed to gain admission to the sophomore classes of that school; and since 1931 an additional 11 per cent of them have been "conditioned" and required to do extra work to satisfy the whimsical "strange policies and practices of Emory . . ." before they were promoted to the sophomore classes of that school. All of this despite the fact that each and every student in the freshmen medical classes at Emory had been selected with great care; and, of course, each student had fulfilled *all* the requirements for a premedical education, which means *average* intelligence and good character in addition to satisfactory grades in the premedical courses of colleges and universities acceptable to Emory. Moreover, the students had been selected from large groups of applicants.

What has been called Emory's *academic indecency* in medical education started in 1922, when 20 per cent of her freshmen medical students were thrown out; but *real* trouble developed in 1926 when approximately 42 per cent of the freshmen medical students failed to gain admission to the sophomore medical class. About that time the Michigan idea of augmenting medical education for the State of Georgia was promulgated, and the annual trek of medical students from Emory to Michigan began.

The number of Emory students sent to Michigan each year has varied, and the total number for all the years is not known. However, data are available for the years 1931 to 1941 which show that 84 Emory medical

students attended the summer courses at the University of Michigan. During these years Emory admitted to its medical school 690 freshmen, of whom 160 were thrown out and 530 were admitted to the sophomore classes, *after* more than 12 per cent of the 530 had obtained knowledge and solace at Michigan's short summer courses of two months, both of which could not be obtained at Emory's courses of eight months. And

NUMBER OF STUDENTS ENROLLED IN THE FRESHMAN AND SOPHOMORE CLASSES OF EMORY UNIVERSITY SCHOOL OF MEDICINE 1920-1942

Session	Freshmen	Sophomores	Percentage of Freshmen Not Reaching Sophomore Class*
1920-1921.....	60*	60
1921-1922.....	60	56*	6.7+*
1922-1923.....	59	48	20.0
1923-1924.....	56	48	18.7+
1924-1925.....	62	39	30.4+
1925-1926.....	55	42	32.3+
1926-1927.....	63	32	41.9+
1927-1928.....	55	44	30.2+
1928-1929.....	64	40	27.3+
1929-1930.....	57	45	29.7+
1930-1931.....	63	45	21.1+
1931-1932.....	61	42	33.3+
1932-1933.....	61	47	23.0
1933-1934.....	64	45	26.3+
1934-1935.....	65	50	21.9+
1935-1936.....	62	52	20.0
1936-1937.....	63	42	32.3+
1937-1938.....	63	51	19.1+
1938-1939.....	60	51	19.1+
1939-1940.....	64	51	15.0
1940-1941.....	64	51	20.4+
1941-1942.....	68	48	25.0
1942-1943.....	68	54	20.6+

TOTALS

(23 yrs.)	1417	1083
Average percentage of freshmen not reaching sophomore class (22 years).....			24.1+†

*Computations of percentage made as follows: freshmen of 1920-1921 and sophomores of 1921-1922, with subsequent years in the same order.

†In computing the supply of physicians to be turned out during the next three years (four academic years), the Council on Medical Education and Hospitals of the American Medical Association, in its 1942 report, subtracted 16.2 per cent from the total number of freshmen students in all the medical schools of the country; that is, the number of medical students graduating in 1945 should be 16.2 per cent less than the number of first year students enrolled in 1942.

each of these students had to spend from \$350 to \$400 to make the trip to Michigan; indeed at one perilous economic period—1936—when approximately one-third of Emory's freshmen medical students were failed outright and almost one-fourth

of the remainder were "conditioned", Emory's "Michigan squad" thought it expedient to hire a Greyhound bus to lessen their extra financial load in their efforts to meet and maintain Emory's so-called standards: standards that flunk outright an average of 24 per cent of freshmen medical students; standards that "condition" another 11 per cent of freshmen medical students; standards that most certainly withhold from the students proper teaching; and standards that fail to take proper cognizance of the most important of all standards, "The Golden Rule."

For some time the "conditioned" Emory medical students sent to Michigan were required by Emory to stand re-examination on their return to Georgia, notwithstanding the Dean and other members of the faculty of Emory's medical school are alumni of the University of Michigan. But this policy of Emory was modified by the *big* father of a Georgia boy soon after the return of the boy from Michigan, where he passed his anatomy examination.

With the coming of the present war and the accelerated program in medical education, a new slogan was adopted by Emory's medical school: "pass 'em or bust 'em", thus depriving certain students of their rights as students, and thus lowering again to lower levels the already low standards in what could be one of the South's best medical schools — Emory University School of Medicine.

The Medical Association of Georgia will hold its Ninety-Fourth Annual Session at the Biltmore Hotel, Atlanta, May 11-12-13-14, 1943. Members are urged to submit titles for scientific papers to be read at this session to any member of the Committee on Scientific Work whose names and addresses follow:

Chairman, Dr. Richard Binion, Milledgeville.

Dr. Mark S. Dougherty, United States Naval Hospital, Charleston, S. C. (Lieut. Commander U. S. Navy Medical Corps.

Dr. B. H. Minchew, Waycross.

Dr. Edgar D. Shanks, 478 Peachtree St., N. E., Atlanta, Secretary-Treasurer.

Dr. Jas. A. Redfearn, Albany, President of the Medical Association of Georgia.

Members in military service who can attend the session, read papers or discuss papers and others will be accorded the most hearty consideration.

THE STATE NUTRITION COMMITTEE

The medical profession probably will be interested to know what has been accomplished by the State Nutrition Committee since its establishment, Nov. 28, 1940, when its first meeting was held in Athens.

The nutrition movement was set up by the Federal Government to function simultaneously in every state, on a fixed organized basis consisting of the following composite groups working for a definite objective:

1. *Steering Committee* (appointed by Dr. Harmon Caldwell, Athens; President of the University of Georgia).

Lurline Collier, State Home Demonstration Agent, Athens, *Chairman*; Catherine Newton, Home Economics Department of the University of Georgia, Athens; Mary E. Barnes, State Department of Public Health, Atlanta; Mrs. Ann Simpson Smith, Home Economics Department of the Georgia State College for Women, Milledgeville; Mary Spiers, Home Economist Georgia Experiment Station, Experiment; Susan Mathews, Extension Nutritionist, Athens; L. M. Lester, Director of Certification and Teacher Training, State Department of Education, Atlanta.

2. *Scientific Committee* (to advise State Nutrition Committee).

Dr. V. P. Sydenstricker, University of Georgia School of Medicine, Augusta; Dr. E. R. Watson, State Department of Public Health, Atlanta; Dr. John B. Fitts, Medical Arts Building, Atlanta.

3. *Food Preservation and Preparation.*

Katherine Lanier, Extension Economist, Food Preservation and Utilization, Athens, *Chairman*.

4. *School Lunches.*

Mary Emma Barnes, State Department of Public Health, Atlanta, *Chairman*.

5. *Food Selection and Food Budgeting.*

Catherine Newton, Home Economics Department University of Georgia, Athens, *Chairman*.

6. *Food Selection and Food Budgeting.*

Catherine Newton, Home Economics Department of University of Georgia, Athens, *Chairman*.

7. *Nutrition Information.*

H. M. Morris, 220 West View Drive, Athens, *Chairman*.

8. *Nutrition in Food Establishments.*

Eleanor Kellow, Manager, Davison-Paxon Tea Room, Atlanta, *Chairman*.

9. *Marketing Committee.*

J. William Firor, College of Agriculture, Athens, *Chairman*.

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

10. *Organization of County Steering Committee.*
Fern Snider, Home Service Director.
Georgia Power Co., Atlanta, *Chairman.*
11. *Nutrition Teaching in School.*
Elizabeth Mayes, State Supervisor of
Health Education, State Office Bldg., At-
lanta, *Chairman.*
12. *Nutrition Courses Committee.*
Mary Vivian McL. Webb, Supervisor.
Home Economics, Fulton County Schools,
Atlanta, *Chairman.*
13. *Nutrition and Industry.*
Dr. L. M. Petrie, State Department of
Health, Atlanta, *Chairman.*

The above is presented to give an idea of the set-up of the organization and its effective personnel.

The philosophy of the committee has been to strengthen and promote already existing nutrition programs in the State. County committees have been unusually active in fostering plans to give out nutrition information. A large number of nutrition classes have been taught.

The American Red Cross has awarded 8,400 certificates for the certification of the standard nutrition courses.

The school lunch programs have been encouraged and fostered.

There are 138 counties organized in the nutrition movement.

Counties located in critical areas have been concerned with preparation for mass feeding in case of evacuation and other emergencies.

In addition to the above activities, many circulars and publications have been prepared and issued.

Speakers' Bureaus have been provided and plans are under way to interest plant managers in industrial feeding. The "Victory Garden" movement has been fostered and encouraged.

And lastly, many quarterly conferences have taken place; for instance, for the one held in Macon in June 1942 there were in attendance 265 people from a majority of the counties organized in the State.

The non-medical scientific groups have done a tremendous amount of work, have contributed freely of their time and talents, and they have placed Georgia fully up to the front in the Nutritional Movement.

JOHN B. FITTS, M.D.

CIVILIAN DEFENSE—EMERGENCY BASE HOSPITALS

The Medical Division of the U. S. Office of Civilian Defense, through its Regional Medical Officers and State Chiefs of Emergency Medical Service, has now made emergency provision for the establishment of a chain of Emergency Base Hospitals in the interior of all the coastal states. They will be activated only in the event of an enemy attack upon our coast which necessitates the evacuation of coastal hospitals. Each base hospital will be related to the casualty receiving hospital which has been evacuated and it is expected that the staff will be recruited largely from the parent institution.

In order to meet a sudden and unexpected crisis without delay, arrangements have been completed with state authorities for the prompt taking over of appropriate institutions in the interior of the State for this purpose and with local military establishments for the transportation of casualties and other hospitalized persons along appropriate lines of evacuation.

More than 150 hospitals in the coastal cities are in the process of organizing small affiliated units of physicians and surgeons, which will be prepared to staff the Emergency Base Hospitals if they should be needed. These units are composed of the older members of the staff and those with physical disabilities which render them ineligible for military service, and of women physicians. In order that a balanced professional team may be immediately available the doctors comprising units are being commissioned in the inactive Reserve of the U. S. Public Health Service so that, if called to duty, they may receive the rank, pay and allowances equivalent to that of an officer in the armed forces.

Dr. George Baehr, Chief Medical Officer of the U. S. Office of Civilian Defense, states that the members of these affiliated hospital units will continue to remain on an inactive status for the duration of the war, unless a serious enemy attack occurs in their region which necessitates the transfer of casualties to protected sites in the interior. Their commissions may be terminated upon their request six months after the end of the war, or sooner if approved by the Surgeon General.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1942-3

President—Frieda Grefe, R.N., Savannah

First Vice-President—Sister Cornile, Atlanta

Second Vice-President—Mrs. Mae M. Jones, Milledgeville.

Secretary—Mrs. Esther Watts, Columbus

Treasurer—Jane Van De Vrede, Atlanta.

Executive Secretary—Durice Dickerson, R.N., Headquarters, 131 Forrest Ave., N. E., Atlanta; Tel. WA. 8911

Chairman, State Committee on American Red Cross Nursing Service—Jane Van De Vrede, Atlanta

President—Georgia League of Nursing Education, Ruth Babin, Atlanta

President, Georgia State Organization of Public Health Nursing—Vera Mingledorff, Griffin

Chairman, Private Duty Section, G.S.N.A.—Mrs. Mildred Pryse, Albany

WAR WORK WITH A FUTURE NURSING

The following 1943 members of the *Georgia State Nursing Council for War Service* announce an expanded program which emphasizes: 1. Recruitment of student nurses for Georgia's schools; 2. Resurvey to determine availability of nurses; 3. Proper distribution of nurses; 4. Return of retired or inactive nurses to the nursing field; 5. Assist in securing student scholarships; 6. Aid the American Red Cross Nursing Service in organizing and teaching Home Nursing and Nurses' Aid classes; 7. Recruitment of nurses for the armed forces.

Executive Committee of the State Nursing Council

Chairman—Frieda Grefe, 402 W. 38th Street, Savannah, president of G.S.N.A.

Vice-Chairman—Sister Mary Cornile, St. Joseph's Infirmary, Atlanta.

Vice-Chairman—Mrs. Edith Hall, 672 Wilson Road, N.W., Atlanta.

Vice-Chairman—Jane Van De Vrede, Route 2, Smyrna, chairman of State Committee of American Red Cross Nursing Service.

Secretary—Mrs. Esther Watts, 3304 Fourteenth Avenue, Columbus, Secretary of G.S.N.A.

Executive Secretary—Durice Dickerson, 131 Forrest Avenue, N.E., Atlanta.

Directors of Field Operations: Carrie Spurgeon, Room 111, State Capitol, Atlanta, educational supervisor of Board of Examiners of Nurses for Georgia; Elsie Crosby, Georgia Public Health Department, Atlanta, associate director of nursing service; Mrs. William Pryse, 131 Forrest Avenue, N.E., Atlanta, chairman of Private Duty Section G.S.N.A.

Chairman, Finance Committee, State Nursing Council, Geraldine Mew, St. Joseph's Hospital, Savannah.

Chairman, Recruitment Committee, State Nursing Council, Ruth Henley, Piedmont Hospital, Atlanta.

Other Members of State Nursing Council

Ruth Babin, president of Georgia League of Nursing Education, Crawford W. Long Hospital, Atlanta.

Vera Mingledorff, president of Georgia State Organization for Public Health Nursing, P. O. Box 335, Griffin.

Margaret Currie, chairman of Industrial Section G.S.O.P.H.N., Gainesville.

Llewellyn Wood, chairman of Registry Committee G.S.N.A., 908 Juniper St., Atlanta.

L. Carey Jones, chairman of Legislative Committee G.S.N.A., 78 Ellis St., Atlanta.

Elizabeth McClellan, chairman of Auxiliary Workers Committee G.S.N.A., Emory University Hospital, Emory University.

Dr. W. A. Selman, chairman of Assignment, Procurement and Medical Preparedness Committee of Medical Association of Georgia, 157 Forrest Ave., N.E., Atlanta.

Mr. Robert Guy, president of Georgia Hospital Association, Georgia Baptist Hospital, Atlanta.

Dr. Edwin R. Watson, Deputy State Chief, Emergency Medical Services O.C.D., Georgia Public Health Department, Atlanta.

Mr. Hughes Spalding, Attorney, Trust Company of Georgia Building, Atlanta.

Dr. George Sparks, Director, University of Georgia Evening College, 162 Luckie St., Atlanta.

Dean Raimundo De Ovies, Pastor, Cathedral of St. Philip, 2744 Peachtree Road, Atlanta.

Sister Mary Mildred, St. Joseph's Hospital, Savannah.

Miss Tommie Parrish, District Governor, International Pilot Club of Georgia, 712 Courthouse, Atlanta.

Mrs. Oscar Palmour, president of Georgia Federation of Women's Clubs, College Park.

Chairmen of District Nursing Councils for War Service

(G.S.N.A. District Presidents)

First District—Geraldine Mew, St. Joseph's Hospital, Savannah.

Second District—Mrs. Joe Dickey, P. O. Box 71, Thomasville.

Third District—Mae Luttrell, Bibb Manufacturing Company, Columbus.

Fourth District—Bessie Rowe, Carrollton.

Fifth District—Carolyn Adkins, 2080 N. Decatur Road, Atlanta.

Sixth District—Mary Johnstono, 197 Belmont Avenue, Macon.

Seventh District—Kathryn Pendley, 403 S. Broad St., Rome.

Eighth District—Mrs. Ida Osterhout, 1009 Egmont Avenue, Brunswick.

(Continued on page 29)

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

GONORRHEA AND THE WAR EFFORT

Venereal disease control as a formal, openly declared public health program, may be said to have had its beginning as recently as 1936. Previous to that time the traditional "hush-hush" attitude toward venereal diseases and prostitution had prevented the public from receiving proper information regarding the prevalence of such diseases and their prevention. It is not to our credit that we are a full generation behind many European countries in venereal disease control.

In 1936 Dr. Thomas Parran, Surgeon General of the United States Public Health Service, boldly awakened the American public with his article on syphilis published in the *Survey Graphic*. The ice was broken and the march was on.

However, the term "venereal disease control" has, so far, been almost synonymous with "syphilis control." Most control programs have been aimed at syphilis to the exclusion of the other venereal diseases. In many respects it is natural that this one point attack should have developed. Syphilis is obviously the most serious, the most tragic and the most dramatic of the venereal diseases. Then, too, in 1936, when widespread venereal disease control measures were first in evidence, we had at hand drugs which promptly rendered syphilis non-infectious. At that time, the sulfonamides, with their now well known magic effects on gonorrhea, were little known and the more effective compounds had not been developed. The old methods of gonorrhea therapy were not adapted to the average public health clinic. Furthermore, syphilis lends itself more readily to the idea of "innocent infection" than does gonorrhea, the latter being recognized even by the public as a result of sex contact. Thus the average person presented himself more readily for examination and treatment for syphilis than for gonorrhea.

However, the greater prevalence of gonorrhea and the vast amount of disability caused by the disease make it imperative that gonorrhea be given attention in the control program equal to that given syphilis. Furthermore, the situation as regards drug control of infectiousness has been reversed. In sulfathiazole we have a drug which provides a much more powerful weapon against gonorrhea than our antisyphilitic drugs afford against syphilis. Still further, our problem here in the South lies mainly in the Negro population, and it has been shown that sulfathiazole is more effective against gonorrhea in the Negro than in whites. We should be able to wipe out gonorrhea much more quickly than syphilis.

The advent of the war effort has made the need for adequate gonorrhea control measure much more urgent than ever. The folly of regarding gonorrhea lightly has been clearly demonstrated

by the staggering loss of man-days in the military services due to gonorrhea. It seems to be agreed by military authorities that gonorrhea is causing a greater loss of man-days in the services than any other disease.

In the Navy alone during 1939, there occurred 8,569 cases of gonorrhea among a total personnel of 149,618 men. This amounted to a loss of 105,692 man days. This was equivalent to having the entire crews of six battleships or eleven cruisers infected at some time during the year. This many sick days in a naval hospital would cost our government \$396,345.00.

The above loss due to gonorrheal infections occurred in a population of less than 150,000 men. Now that our military forces are counted in terms of millions of men, with millions of persons in addition engaged in vital defense work, the loss of needed manpower due to gonorrhea assumes almost unbelievable proportions.

Dr. P. S. Pelouze, of Philadelphia, world authority on gonorrhea, recently made a lecture tour through Georgia, speaking to medical societies and public health workers. Naturally, military doctors were invited to these meetings. Any doubt one might have that gonorrhea constitutes a major problem in the Army would have been dispelled could he have seen the large number of military doctors present and heard the barrage of practical, intelligent questions fired at the speaker. It was evident that these men had been saddled with a real problem and were anxious for help.

At the request of medical officers, Dr. Pelouze visited several venereal disease wards at Army posts. Many problem cases were seen among drug-refractory patients. Some of these medical officers, including some urologists, had apparently not been interested in treating gonorrhea in civilian life and their eagerness for help was pathetic.

While venereal disease rates in the armed forces are military secrets, let no one doubt that, especially among colored troops, in some places they are unbelievably high.

Our troops get their infections from our civilian communities. It is the duty of every civilian community then to do everything possible to clean up its sources of infections.

Every patient cured, every contact placed under treatment or reported to proper health authorities, every house of prostitution closed, every person connected with prostitution punished, every educational effort, every step to provide wholesome recreation for military men, is a blow against this arch saboteur, *gonorrhea*.

JOHN M. WALTON, M.D.,
State Venereal Disease Control Officer,
State Department of Public Health.

WOMAN'S AUXILIARY**: OFFICERS 1942-43**

President—Mrs. J. Lon King, 223 Buford Place, Macon.

President-Elect—Mrs. Wm. Bruce Schaefer, Toccoa.

First Vice-President—Mrs. Harry M. Kandel, 432 Abercorn Street, Savannah.

Second Vice-President — Mrs. Walter G. Elliott, Cuthbert.

Third Vice-President — Mrs. Ralph W. Fowler, Marietta.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta

Recording Secretary—Mrs. J. C. Metts, 303 Anderson Avenue, Savannah.

Parliamentarian—Mrs. S. T. R. Revell, Louisville.

Treasurer—Mrs. Lucius N. Todd, Rural Delivery No. 2, Augusta.

Historian—Mrs. Jack R. McMichael, Quitman.

Corresponding Secretary—Mrs. Wallace L. Bazemore, 127 Beverly Place, Macon.

Mrs. Kandel's Message

Mrs. H. M. Kandel, of Savannah, first vice-president of the Woman's Auxiliary to the Medical Association of Georgia and chairman of health education, issues the following interesting message to members:

"We have never had a greater opportunity for service to the medical profession and to our communities than we have today in the field of health education. The war effort demands of every individual maximum health and vigor. Communities have been stripped of physicians to serve the armed forces. Increased demands on doctors left in civilian practice will leave them no time to prepare and deliver talks and lectures for lay education. Medical manpower must be conserved and yet leadership in matters medical must be kept where it rightfully belongs, in the hands of medical men. We are an auxiliary to the medical profession in these trying times. We can be the organ through which the organized medicine speaks in the interest of better health for the citizens of our nation. Are we prepared for this service?"

"The following suggestions may serve to direct your thinking to ways in which you can meet the health education needs of your community. The president of the Medical Association of Georgia has stated that the need for hospital beds for tuberculous patients and nutrition should be given special emphasis this year. Your auxiliary is obligated to plan and present programs on these subjects that will stimulate interest and action. Other health problems emphasized in the past are still with us, so let us not forget them. The wide use of the health films made available by the Medical Association of Georgia and the Georgia Department of Public Health will simplify program planning. Hygeia offers excellent material for use in planning panel, symposium, forum and dramatization type programs. The State Health Department and the A. M. A. have literature for distribution. Health education chairmen might assemble suitable materials in packet libraries to be used by instructors in nutrition and home nursing and by health and program chairmen of lay groups. Why not plan to have health education programs at regular auxiliary meetings? Please let me hear of your plans and write me about your successful

health education programs. Call on me if I can help you."

Chatham County

An informative and instructive talk on nutrition was given by Mrs. Francis M. Turner at the recent meeting of the Woman's Auxiliary to the Georgia Medical Society in Savannah. Mrs. Lee Howard introduced the speaker. Mrs. Samuel Rosen was appointed as Chatham County chairman for the Women's Field Army for Control of Cancer and Mrs. Julian F. Quattlebaum was named chairman of the annual bulletin. An invitation was read from the Chatham-Savannah Tuberculosis Association to its annual Thanksgiving tea and pantry shower.

Eighth District

The semi-annual meeting of the Woman's Auxiliary to the Eighth District Medical Society was held recently at the First Baptist church in Waycross with Mrs. W. M. Flanagan, manager, presiding. The Rev. Albert Trulock, pastor of the First Methodist church, gave the invocation and Mrs. Kenneth McCullough welcomed the visitors, to which Mrs. Joe Gay, of Homerville, responded. Mrs. J. Lon King, of Macon, president of the state group, urged members not to allow present conditions to disorganize and disrupt their organizations and stressed the importance of home defense work being done through the State by medical auxiliaries, in cooperation with war workers, especially the American Red Cross. Dr. J. A. Redfearn, president of the Medical Association of Georgia, stressed the importance of proper nutrition and urged members to be sure that products they take to supplement their diets be recognized by reputable physicians. He advised all members to have a garden, cows and chickens when possible. Through the courtesy of the State Public Health Service two health films were shown, one on tuberculosis and the other on nutrition. Officers of the district group are Mrs. W. M. Flanagan, of Waycross, manager; Mrs. T. V. Willis, of Brunswick, vice-manager; Mrs. Louis Smith, of Lakeland, secretary-treasurer; and Mrs. C. M. Stephens, of Waycross, publicity. Mrs. Flanagan appointed the following nominating committee to present a slate of officers at the next meeting: Mrs. Leo Smith, of Waycross; Mrs. James Hicks, of Brunswick; and Mrs. Louis Smith, of Lakeland. A social hour followed the meeting.

Sixth District

The Woman's Auxiliary to the Sixth District Medical Society met December 9 at the home of Mrs. Earnest Corn. in Macon. Mrs. James B. Dillard, manager, presiding. The meeting opened by singing "God Bless America." Dr. Silas Johnson, of Mulberry Street Methodist Church, gave the invocation. Mrs. Carl Anderson, Bibb County Medical Auxiliary president, welcomed the ladies and Mrs. Y. H. Yarbrough, Milledgeville, responded. Miss Rae Stubbs, of the Wesleyan Conservatory Faculty, sang "The Sleep That Flits On Baby's Eyes," and "My Lover Is A Fisherman," accompanied by Mrs. Doris O. Jelks.

Mrs. Dillard then introduced Mrs. J. Lon King, state president of the Auxiliary, who spoke on the purposes of the Auxiliary—friendliness, service and being help-mates to our doctor-husbands.

Mrs. James N. Brawner, Atlanta, past state president, brought a message to the group on the work of the Atlanta Doctors' Aide Corps. She had presented this set-up of work for the doctors' wives for contributing to the war effort to the Advisory Committee of the Southern Medical Association at Richmond a few weeks ago, as well as to the American Medical Association. Mrs. Brawner distributed typed copies and newspaper clippings of preliminary publicity and plans for the Doctors' Aide Corps, whose objective is to relieve the doctor whenever possible in the present emergency. There is a prescribed course of study with a graduation and induction, also an insignia and uniform. A course of lectures on general health topics for the Doctors' Aide Corps, a civic housekeeping program, a physical fitness program and the local milk problem, is required. The health education program included studying nutrition, tuberculosis, venereal diseases and cancer control. An Information and Speakers' Bureau is ready to furnish programs and speakers for radio, and lay groups; also a filing and lending bureau has been established at headquarters. The service for handling health films has been very successful. The Blood Type Registry is the most spectacular branch of the Doctors' Aide Corps and is already functioning. The members of the corps cooperate with the Red Cross, the A. W. U. S., and the other defense agencies striving in various fields as Home Nursing, Nutrition, First Aid, Nurses' Aides, Receptionists, Filing Clerks, etc. After the intensive training course the aides take the pledge of the corps, always remembering their code of ethics. Mrs. Brawner stated that each woman chose the branch in which she wished to serve, and said interest in the work is great. She offered to assist any auxiliaries that wished to take up this work.

Mrs. C. C. Harrold, of Macon, presented Dr. Josiah Crudup of Mercer University, who talked on the privileges of being an American. He gave the quotation "He that planteth a tree is the servant of God" and followed this with the

thought that planting an idea by a people is even greater. America, a country of fraternity, brotherhood, justice, truth and right, planted the idea of celebrating and commemorating certain days—October 12—Columbus Day; Thanksgiving, Christmas and others. In this war-torn world, America is the hope of humanity, and as a people we must have the courage of our forefathers who conquered the wilderness. This world at war will soon pay homage to Christ, the Prince of Peace, Dr. Crudup said. Our patriotism must shape itself into an opportunity to render service to our country and the world. America, the arsenal of democracy, must furnish supplies for all the world, and above all furnish a manhood and womanhood, adequate mentally and spiritually to pull the world through the present maelstrom—"God Give Us Men," which will be our greatest assembly line, was quoted by the speaker. We must preserve our ideals for education, the American home, and plant the trees of Beauty, Goodness, Justice and Truth. There must be no vengeance when the peace comes—a fundamental bedrock of decency and humanity must be established for our boys going out to war. The conqueror must minister to the conquered and forget the hatred of the demigods to win a peace worth fighting for "And crown thy good with brotherhood from sea to shining sea."

Mrs. Dillard asked for the roll call by the secretary. There were 49 women present: Bibb 26, Washington 2, Baldwin 4, visitors 17. The minutes of the June meeting were read and approved.

The following committees were announced by the manager:

Scrapbook, Mrs. Charles Richardson, Macon; Historian, Mrs. Y. H. Yarbrough, Milledgeville; Public Relations, Mrs. H. C. Atkinson, Macon; Hygeia, Mrs. L. P. Longino, Milledgeville; Student Loan Fund, Mrs. J. D. Applewhite, Macon; Jane Todd Memorial, Mrs. Emory Clay, Macon; Doctor's Day, Mrs. O. D. Lennard, Tennesse; Health Films, Mrs. Carl L. Anderson, Macon; Legislation, Mrs. J. N. Newsome, Sandersville; and Research in Romance and Medicine, Mrs. Richard Binion, Milledgeville.

Mrs. Dillard next read the slate of officers for 1942-43:

District Manager, Mrs. James B. Dillard, Davisboro; District Manager Elect, to be elected; Secretary and Treasurer, Mrs. Edwin W. Allen, Milledgeville; and Parliamentarian, Mrs. Charles Harrold, Macon.

The names of the sixteen counties in the District were reviewed. Digitalis was announced as the flower of the Auxiliary, and "God Bless America" the state theme song. Mrs. Dillard stressed the need for service in the present time, and that Auxiliary members were needed for work in Health and Nutrition as specifically outlined by Mrs. Brawner. She suggested that the group might assist in furnishing the much needed beds for Alto and that members should become more active in the work as individuals, and then

help in organizing auxiliaries. Mrs. Charles Woods, of Macon, asked Bibb County auxiliary members to bring Christmas presents for the soldiers in the hospitals at Robins' Field. The meeting adjourned, after which a beautiful tea was given for the group with Mrs. Earnest Corn and Mrs. Allan Smith as hostesses.

GEORGIA STATE NURSES ASSOCIATION DEPARTMENT

(Continued from page 25)

Ninth District—Ruby Falls, Chicopee Mills, Chicopee.

Tenth District—Mrs. Olive Barbin, 957 Russell Street, Augusta.

Eleventh District—Mrs. Hazel Brittain, General Hospital, Athens.

Committees of the State Nursing Council

Recruitment—Ruth Henley, Chairman, Piedmont Hospital, Atlanta; Mrs. Frances King, Public Health Department, Americus; Sister M. Mildred, St. Joseph's Hospital Savannah; Sister M. Cornile, St. Joseph's Infirmary, Atlanta; Dr. George Parks, 162 Luckie St., N.W., Atlanta; Miss Tommie Parrish, 712 Courthouse, Atlanta; Mrs. Oscar Palmour, College Park.

Distribution—Sister M. Cornile, Chairman, St. Joseph's Infirmary, Atlanta; Carrie Spurgeon, Room 111, State Capitol, Atlanta; Ruth Babin, Crawford W. Long Hospital, Atlanta; Vera Mingleddorff, P. O. Box 335, Griffin; Mrs. William Pryse, 131 Forrest Ave., N.E., Atlanta; Mrs. Oscar Palmour, College Park.

Public Information—Durice Dickerson, Chairman, 131 Forrest Ave., N.E., Atlanta; Ruth Henley, Piedmont Hospital, Atlanta; Sister M. Cornile, St. Joseph's Infirmary, Atlanta; Dean Raimundo De Ovies, 2744 Peachtree Road, Atlanta.

Finance—Geraldine Mew, Chairman, St. Joseph's Hospital, Savannah; Jane Van De Vrede, Route 2, Smyrna; Mr. Hughes Spalding, Trust Company of Georgia Building, Atlanta; Mrs. Frances King, Public Health Department, Swainsboro.

Each District Nursing Council has a Key Nurse for each county. The directors of thirty County Emergency Medical Services O.C.D., have appointed Local Nurse Deputies and a State Nurse Deputy who will work with the County Key Nurses in bringing the District Nursing Council programs to local use. Doctors, nurses and the public are requested to contact the chairman of their respective District Nursing Councils as listed above, in order to aid them in all ways possible in carrying forward this war nursing job. The District Nursing Councils are organized and functioning in line with State and National programs.

There are one and one-half times as many deaths from tuberculosis among men as among women. The preponderance of deaths among men is in the older age groups, the reverse is true among women. Mary Dempsey, Nat'l. Tuber. Assn.

NEWS ITEMS

The Bibb County Medical Society met on December 15. Reports of cases were made by Dr. R. W. Edenfield, Dr. R. W. McAllister and Dr. A. E. Siegel, all of Macon.

The Staff of the Georgia Baptist Hospital, Atlanta, met in the Nurses' Dining Room on December 15 for dinner. The scientific program was held in the Sheffield Clinic Auditorium.

The second seminar of the Student Council of Oglethorpe University School of Medicine was held at the Academy of Medicine, Atlanta, December 11. Dr. Fred H. Albee, of New York City and Venice, Florida, spoke on "Bone and Joint Surgery in Warfare."

The Associations of Military Surgeons of the United States met at the Cosmos Club, Washington, D. C., Dec. 15. The Gorgas Medal, founded by John Wyeth & Brother, Philadelphia, was awarded to Rear Admiral Edward Rodes Stitt, U. S. N.; Brigadier-General Jefferson Randolph Kean, U. S. A., and Brigadier-General Frederick Fuller Russell, U. S. A., for distinguished service in Preventive Medicine for Our Armed Forces.

Dr. William B. Crawford was elected president of the staff of St. Joseph's Hospital, Savannah, on December 17. Dr. E. N. Gleaton was elected vice-president.

Dr. William D. Sears, Ellaville, recently celebrated his 86th birthday at his home. He has been active in church work and retired from the active practice of medicine 14 years ago. He graduated from the Atlanta School of Medicine in 1882.

Dr. Wm. F. Lake announces the removal of his office to the Crawford W. Long Memorial Hospital, 35 Linden Avenue, N. E., Atlanta. His practice will be limited to roentgenology.

The Fulton County Medical Society held its thirty-eighth anniversary dinner meeting at the Piedmont Driving Club, Atlanta, on January 4. The program was featured by an address of Capt. Marion C. Robertson, U. S. N., as guest speaker. Installation of officers, inaugural address by the president, announcement by committees. The society held its regular semi-monthly meeting on January 18. Dr. Eugene Stead, professor of medicine, Emory University School of Medicine, spoke on "Highlights of Medicine in 1942"; Dr. Marion C. Pruitt read a paper on "Cramp in the Rectum." The Bulletin of the Fulton County Medical Society, in its January 4 issue, contained articles with titles as follow: "New Year Resolutions"; "Annual Message of the President" by Dr. Major F. Fowler; "Annual Report of the Board of Trustees" by Dr. J. R. Childs, chairman; "Report of Judicial Council" by Dr. Kimsey E. Foster, Dr. W. C. Goodpasture and Dr. J. Calvin Weaver, chairman; "Annual Report of Secretary-Treasurer" by Dr. Eustace A. Allen, secretary-treasurer; "Committee on Public Health and Instruction" by Dr. Earl Floyd, Dr. Crawford F. Barnett, Dr. Hartwell Boyd, Dr. Wm. L. Dobes and Dr. W. L. McDougall, chairman; "Officers and Delegates were Elected December 21, 1942"; "Radio Broadcasts Doctors at War"; "Milk Commission" by Dr. C. M. West, Dr. Edgar D. Shanks, Dr. W. W. Anderson, Dr. Theodore Toepel and Lee Hop-

ping, D. V. M.; "Report of Committee on Scientific Work" by Dr. Carter Smith, acting chairman; "Advisory Committee to Woman's Auxiliary" by Dr. Edgar H. Greene, Dr. O. H. Matthews, Dr. Jas. N. Brawner, Jr., Dr. Crawford F. Barnett and Dr. H. C. Sauls, chairman; "Report of New Academy Finance Committee," by Dr. W. A. Selman, chairman, and Dr. R. E. Newberry, co-chairman; and "Memorial Exercises."

The Bibb County Medical Society met in Ridley Hall, Macon, January 5. Dr. Max Mass read a paper entitled, "Pathological Aspects of Hypertension."

The staff of the Department of Medicine, Grady Hospital, Atlanta, met on January 3. Subjects discussed were: "Scarlet Fever," "Tularemia," "Staphylococcus Meningitis" and "Epidural Hematoma."

The regular staff meeting of Emory University Hospital, Emory University, met on January 5. Dr. E. A. Stead, Jr., spoke on "Postural Hypertension."

Dr. A. J. Ayers announces that he will continue laboratory, x-ray and clinical pathologic practice in his private offices, Suite 111, Medical Arts Building, Atlanta.

The Baldwin County Medical Society at a recent meeting passed a motion to establish health centers at Stevens' Pottery and in Milledgeville in cooperation with the physicians at the Milledgeville State Hospital.

Dr. Arthur J. Merrill, Atlanta, instructor in medicine at Emory University School of Medicine, will take special work in clinical aspects of tropical medicine at the Army Medical College, Washington, D. C. Dr. William Platt, Atlanta, an instructor in pathology at Emory University School of Medicine, will study the laboratory aspects of tropical diseases at New Orleans, La. Both will return to Atlanta about March 1 to arrange the introduction of courses in tropical diseases at Emory University School of Medicine.

The visiting staff of Grady Hospital, Atlanta, met on January 12. Titles of reports of cases were: "Duodenal Atresia" by Dr. Fred Cooper, discussed by Dr. M. Hines Roberts and Dr. Charles Ward. "Eclampsia with Hemoglobinuria" by Dr. Paul Flowers, and discussed by Dr. John B. Hickman. Officers of the staff are Dr. Jeff L. Richardson, president, and Dr. Eleanor Townsend, chairman of Program Committee.

The University Hospital, Augusta, has authority and will accept indigent patients from counties which have no provision for hospitalization of indigent sick people. Patients who need general medical and surgical care will be considered, and will be cared for to the limit of the capacity of the hospital for such work.

The Bulletin of the Fulton County Medical Society published on January 18 carries articles with the following titles: "A Letter to the Members," by the Editor, Dr. Eustace A. Allen; "Address of the President," Dr. Geo. W. Fuller; "Thirty-Eighth Anniversary Meeting"; "Presentation of President's Key," Dr. J. R. Childs, Chairman, Board of Trustees; "News Items"; and list of hospitals in Atlanta approved by the American College

of Surgeons. Titles for papers on the program for February 1, are: "Highlights of Dermatology for 1942" by Dr. Herbert S. Alden; "Vaginal Hysterectomy," Dr. Olin S. Cofer; to be discussed by Dr. W. W. Daniel and Dr. B. L. Shackleford. Titles of papers on the program for February 15 meeting are: "Highlights of Hematology for 1942" by Dr. Roy Kracke, Emory University; "Review of Acute Respiratory Diseases," Dr. Paul Beeson, discussion by Lt. C. T. Nelson, M. C., and Dr. Henry W. Minor.

COUNTIES REPORTING FOR 1943

Meriwether County Medical Society

The Meriwether County Medical Society announces the following officers for 1943:

President—Chas. E. Irwin, Warm Springs.
Vice-President—Stuart Raper, Warm Springs.
Secretary-Treasurer—R. B. Gilbert, Greenville.

Cherokee-Pickens Counties Medical Society

The Cherokee-Pickens Counties Medical Society announces the following officers for 1943:

President—Jno. T. Pettit, Canton.
Secretary-Treasurer—R. T. Jones, Canton.
Delegate—C. J. Roper, Jasper.
Alternate Delegate—T. W. Whitfield, Tate.

Mitchell County Medical Society

The Mitchell County Medical Society announces the following officers for 1943:

President—C. L. Roles, Camilla.
Vice-President—J. G. Crovatt, Camilla.
Secretary-Treasurer—D. P. Belcher, Pelham.
Delegate—J. W. Ward, Baconton.
Alternate Delegate—M. M. Burns, Pelham.

Bibb County Medical Society

The Bibb County Medical Society announces the following officers for 1943:

President—Alvin E. Siegel, Macon.
President-Elect—A. M. Phillips, Macon.
Vice-President—R. W. McAllister, Macon.
Secretary-Treasurer—R. W. Edenfield, Macon.
Delegate—A. R. Rozar, Macon.
Delegate—J. B. Kay, Byron.
Alternate Delegate—H. G. Weaver, Macon.
Alternate Delegate—J. L. King, Macon.

Georgia Medical Society (Chatham County)

The Georgia Medical Society announces the following officers for 1943:

President—J. Reid Broderick, Savannah.
President-Elect—E. J. Whelan, Savannah.
Vice-President—Ruskin King, Savannah.
Secretary-Treasurer—S. Elliott Wilson, Savannah.
Delegate—C. F. Holton, Savannah.
Delegate—Ruskin King, Savannah.

Ware County Medical Society

The Ware County Medical Society announces the following officers for 1943:

President—W. M. Flanagan, Waycross.
Vice-President—J. E. Penland, Waycross.
Secretary-Treasurer—Kenneth McCullough, Waycross.
Delegate—W. F. Reavis, Waycross.
Alternate Delegate—A. W. DeLoach, Waycross.

Floyd County Medical Society

The Floyd County Medical Society announces the following officers for 1943:

President—A. F. Routledge, Rome.
 Honorary President—Warren M. Gilbert, Rome.
 Vice-President—Robert Harbin, Jr., Rome.
 Secretary-Treasurer—Inman Smith, Rome.

Habersham County Medical Society

The Habersham County Medical Society announces the following officers for 1943:

President—Fred Crenshaw, Alto.
 Vice-President—J. B. Jackson, Clarkesville.
 Secretary-Treasurer—T. H. Brabson, Cornelia.
 Delegate—D. H. Garrison, Clarkesville.
 Alternate Delegate—O. N. Harden, Cornelia.

Carroll County Medical Society

The Carroll County Medical Society announces the following officers for 1943:

President—S. F. Scales, Carrollton.
 Vice-President—J. E. Powell, Villa Rica.
 Secretary-Treasurer—D. S. Reese, Carrollton.

Spalding County Medical Society

The Spalding County Medical Society announces the following officers for 1943:

President—W. C. Miles, Griffin.
 Vice-President—T. I. Hawkins, Griffin.
 Secretary-Treasurer—T. O. Vinson, Griffin.
 Delegate—Geo. L. Walker, Griffin.
 Alternate Delegate—T. O. Vinson, Griffin.

Emanuel County Medical Society

The Emanuel County Medical Society announces the following officers for 1943:

President—J. H. Chandler, Swainsboro.
 Vice-President—S. S. Youmans, Swainsboro.
 Secretary-Treasurer—D. D. Smith, Swainsboro.
 Delegate—J. H. Chandler, Swainsboro.
 Alternate Delegate—S. S. Youmans, Swainsboro.

Fulton County Medical Society

The Fulton County Medical Society announces the following officers for 1943:

President—George W. Fuller, Atlanta.
 President-Elect—Ben H. Clifton, Atlanta.
 Vice-President—McClaren Johnson, Atlanta.
 Secretary-Treasurer—Eustace A. Allen, Atlanta.

Jenkins County Medical Society

The Jenkins County Medical Society announces the following officers for 1943:

President—H. H. Lee, Millen.
 Vice-President—A. P. Mulkey, Millen.
 Delegate—C. Thompson, Millen.

Coweta County Medical Society

The Coweta County Medical Society announces the following officers for 1943:

President—W. H. Tanner, Newnan.
 Secretary-Treasurer—M. F. Cochran, Newnan.

Warren County Medical Society

The Warren County Medical Society announces the following officers for 1943:

President—H. B. Cason, Warrenton.

Vice-President—F. L. Ware, Warrenton.

Secretary-Treasurer—A. W. Davis, Warrenton.

Delegate—F. L. Ware, Warrenton.

Alternate Delegate—H. B. Cason, Warrenton.

Troup County Medical Society

The Troup County Medical Society announces the following officers for 1943:

President—Hugh McCulloh, Jr., West Point.
 Vice-President—C. O. Williams, West Point.
 Secretary-Treasurer—J. C. Morgan, West Point.

Baldwin County Medical Society

The Baldwin County Medical Society announces the following officers for 1943:

President—W. A. Bostick, Hardwick.
 Vice-President—E. L. Walker, Milledgeville.
 Secretary-Treasurer—H. M. Olnick, Milledgeville.
 Delegate—H. M. Olnick, Milledgeville.
 Alternate Delegate—T. C. Clodfelter, Milledgeville.

OBITUARY

Dr. Cluesc A. Blanchard, Augusta; member; University of Georgia School of Medicine, Augusta, 1892; aged 72; died suddenly on November 7, 1942. He was a native of Columbia county. He was active in the practice of medicine and had an extensive practice. Dr. Blanchard is survived by his widow and several children.

Dr. James R. Boring, Canton; member; Atlanta College of Physicians and Surgeons, Atlanta, 1899; aged 64; died on November 29, 1942. He was a native of Cobb County. Had practiced medicine in Canton for 37 years. Dr. Boring served on the Canton Board of Education for 12 years. He was examiner for the Cherokee County Draft Board during World War No. 1 and was serving as examiner for the Cherokee County Selective Service Board in the present war. He was a member and steward in the First Methodist Church of Canton. Surviving him are his widow and two sons, James Boring, Jr., Tampa, Florida, and Paul Boring, of Canton. Rev. Fred L. Glisson, Dr. Wallace Rogers, Rev. Paul Turner and Rev. Peter Manning officiated at the funeral services conducted at the First Methodist Church of Canton. Burial was in Canton Cemetery.

Dr. Hinton Miller Belflower, Sycamore; member; Atlanta College of Physicians and Surgeons, Atlanta, 1911; died on December 3, 1942, of heart disease. He was a native of Dooly County. He spent his entire professional career at Sycamore and had practiced there for 30 years. Dr. Belflower was a member of the Turner County Medical Society, trustee and member of the Sycamore Methodist Church, county board of education and Shrine. Rev. W. C. Rahan officiated at the funeral services conducted at his home. Interment was in Pleasant Hill Cemetery.

Dr. Madison Pope Deadwyler, Maysville; member; Jefferson Medical College of Philadelphia, Pennsylvania, 1897; aged 69; died on December 3, 1942. He was a prominent physician in Maysville and surrounding territory for 38 years. Dr. Deadwyler was mayor for a num-

ber of years of Maysville and a steward in the Methodist Church. Surviving him are his widow, one sister and one brother. Funeral services were conducted at the Maysville Methodist Church. Burial was in Maysville Cemetery.

Dr. James E. New, Dexter; member; University of Georgia School of Medicine, Augusta, 1900; aged 65; died on December 11, 1942. He was thrifty and persevering, was one of the largest land owners in Laurens County. He was chairman of the Laurens County Welfare Board since it was created in 1937 and chairman of the Dexter Board of Education for 30 years. Surviving him are his widow, two daughters, Mrs. John Merritt Fisher, Washington, D. C., and Mrs. Arthur Adams, Dublin; three sons, Capt. Jas. S. New, M. C., U. S. Army; Lieut. Brantley New, U. S. Army, stationed at Venezuela, and Pvt. Jacob New, U. S. Army, Denver, Colorado. Dr. Clarence D. Graves, Rev. C. E. Vines, Rev. C. C. Long and Rev. Anthony Hearn officiated at the funeral services conducted at the Dexter Baptist Church. Burial was in North View Cemetery in Dublin.

Dr. Cadow B. Walling, Collins; member; University of Georgia School of Medicine, Augusta, 1902; aged 72; died in a private hospital in Reidsville on December 6, 1942. He had an extensive practice in Tattnall and adjoining counties. Dr. Walling was a successful practitioner and had hundreds of friends. Surviving him are his widow and four daughters. Rev. Wilson, Rev. Jenkins and Rev. Robertson officiated at the funeral services conducted at Mt. Carmel Church. Burial was in the churchyard.

Dr. John W. Pinkston, Greenville; member; Southern Medical College, Atlanta, 1889; aged 82; died on December 14, 1942, at his home. On account of poor eye sight he retired from practice several years ago. He was well informed on general events, unusually charitable, and a leader in civic and religious affairs and a member of the Methodist Church. He fulfilled his mission in his public spirited leadership for upbuilding Meriwether County and his home city. Surviving him are his widow, one daughter, Mrs. Frank Norman of Columbus. Rev. R. E. Elliott and Rev. J. H. Cowart officiated at the funeral services conducted in the home. Burial was in the City Cemetery.

Dr. Booton Stover Compton, Atlanta; University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, 1910; aged 59; died on December 26, 1942. He was chief medical director of the Veterans' Administration Facility, Atlanta. Dr. Wm. V. Gardner and Elder J. A. Monsees officiated at the funeral services. Burial was in West View Cemetery.

Dr. John W. Pinkston, Greenville; Southern Medical College, Atlanta, 1889; aged 82; died on December 14, 1942. He retired from active practice a number of years ago on account of impaired eyesight. He was one of the leading physicians and citizens of Meriwether County. Surviving him are his widow, one daughter, Mrs. Frank Norman, Columbus. Rev. R. E. Elliott and Rev. J. H.

Cowart officiated at the funeral services conducted at the residence. Burial was in the City Cemetery.

Dr. James Thweatt Ross, Macon; member; Jefferson Medical College of Philadelphia, 1885; aged 82; died on December 22, 1942, at his home. He was a native of Randolph County and had lived the most of his life in Macon. He was a graduate of Mercer University. Dr. Ross operated the first hospital ever established in Macon, and was chief surgeon for the Georgia Southern & Florida Railway for 30 years. He was a member of the First Methodist Church. It is claimed that Dr. Ross was the first surgeon south of Baltimore to perform a cesarean section, hysterectomy and an appendectomy. Surviving him are his widow, one daughter, Mrs. Henry Valentine, Macon; and one son, Dr. James T. Ross, Jr., Miami, Fla. Dr. J. E. Sammons officiated at the funeral services conducted at Hart's Mortuary.

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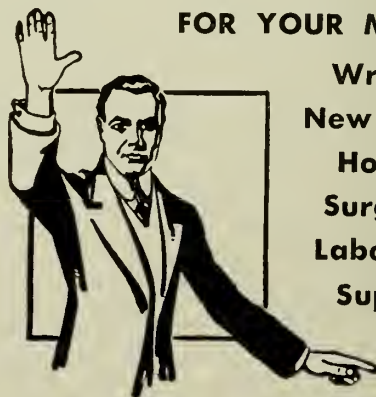
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THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

VOL. XXXII

Atlanta, Georgia, February, 1943

Number 2

THE CARE OF PREMATURE INFANTS

WM. WILLIS ANDERSON, M.D.

Atlanta

An arbitrary definition of a premature infant is one weighing less than 5½ pounds, or being less than 17 inches in length. These infants are normal for their fetal age. In this same group, however, there should be included congenital weaklings from various causes, such as malnutrition, infections and toxemias on the part of the parents. Such congenital weaklings should receive the same medical and nursing care as premature infants.

In Georgia there have been for the past ten years between 3,000 and 3,500 premature births annually. Although the death rate of prematures must of necessity remain high, the death rate of these 3,000 prematures is entirely too high — 400 deaths per 1,000. The Georgia Pediatric Society has selected as its major project premature infants, in an attempt to reduce this high mortality rate. This discussion is part of the general plan.

In analyzing the ages at the time of death, if prematures survive the first few weeks of life their chance of living increases tremendously. Eleven hundred prematures die before they are 1 month old, whereas for the remaining 11 months of the year only 1,150 die before they are 1 year of age. The practical point of this analysis is that to save them, they must be under supervision as early as possible, and kept under supervision until they are at least of average size and weight.

In keeping with age, the death rate according to weight is similar. Under 2½ pounds 85 per cent of premature infants

die as compared to only 12 per cent of those weighing between 4½ and 5½ pounds.

The commoner obstetric factors influencing premature births may injure either the mother or the baby, or both. Labor may be precipitated by injury, as the mother being involved in an automobile accident; by overwork, exhaustion, or emotional disturbances. Placenta previa and abruptio placenta may injure both the baby and the mother. The most common causes are infections and the toxemias of pregnancy.

The baby's gain in weight *in utero* is 120 grams during the fifth lunar month, 180 the seventh, as compared to 300 grams the ninth month, so that prolonged gestation is always in favor of the infant's chance of surviving.

A study of obstetric anesthesia is interesting in that 60 per cent of infants had to be resuscitated after the use of morphine-scopolamine anesthesia, 40 per cent after phenobarbital, as compared to only 10 per cent requiring resuscitation when no anesthetic was administered.

Anticipating premature births, the nursery should be in readiness. Emergency apparatus include some type of incubator, a warm room, warm sterile blankets, a catheter for aspirating mucus from the mouth, and oxygen. A breast pump, medicine droppers, small nursing bottles, a small catheter, No. 10 French; and a Breck feeder should be available. Oxygen should be used freely, and early.

Substituted for the usual baby clothes is a cloak, made of gauze and padded with cotton, with a hood attached for the head, in order not to handle the infant any more than is humanly possible. Later on, as the baby gains strength and weight, shirts, dresses, abdominal bands, etc., are worn.

If the baby is either too small or too weak,

he is unable to take the mother's nipples in his mouth, or to nurse a bottle, so that he has to be fed with a medicine dropper with a rubber tube slipped over the end; or in those even too feeble to swallow, a catheter has to be used into the stomach and he has to be fed through the catheter. He will often regurgitate fluids and strangle, and respiration, being very unstable at this feeble age, will cease altogether.

The administration of fluids, including blood, intravenously, intramuscularly or subcutaneously, has saved many a premature infant. Since prematures are much more susceptible to infections than stronger babies, extreme aseptic care should be used with any of these procedures.

Stimulants should be ready at all times. Those most frequently used include adrenalin, oxygen, carbon dioxide, alpha lobeline, camphor, and artificial respiration.

It is impossible to underestimate the general care of premature infants and until we can have especially trained individuals handling them we cannot hope to do much in reducing the death rate for the group. Permanent injury may result from improper handling in the first few hours of life. At birth the premature should be placed in warm blankets. Ligation of the cord should be delayed until pulsation ceases so that the infant gets as much blood as possible from the cord. Extra care should be exercised in ligating the cord, so that he might not lose blood if the ligation should fail to hold. He is bathed as little as possible. Weighing is dispensed with except to acquire knowledge of his growth and development. Many different types of incubators are in use, ranging from clothes baskets lined with blankets and heated by hot water bottles to elaborate air-conditioned automatic metal boxes. Some of the hospitals are equipped with special rooms for prematures in which temperature, moisture and fresh air can be controlled. The temperature of the incubator should be checked about twice a day with the baby's rectal temperature. If the temperature in the incubator is too high, the baby's body temperature accordingly may be elevated so that his rectal temperature may be as high as 102, 103, etc., and will

become normal only after the temperature in the incubator is lowered. In like manner we have seen rectal temperatures as low as 96 when there is insufficient heat in the incubator, or before the premature is placed in an incubator. With a body temperature of 103 the infant will suffer gastro-intestinal upsets, as diarrhea and vomiting, and will not gain weight until the temperature is lowered.

Naturally, the gain in weight in such weaklings is not as much as in normal babies. Frequently they will not gain for 2 or 3 weeks, and then slowly. Feeding presents many problems. Perhaps the most common error on the part of the medical profession is to overfeed them, and cause diarrhea and vomiting. The common problems of the infant are his strength to take the breast or the bottle and nurse, or his strength to even swallow at all, his ability to tolerate food, or to take sufficient quantities, or retain sufficient quantities to assure his caloric requirements to maintain weight or to gain weight.

Strict surgical asepsis should be followed by doctors, nurses and the other attendants giving service to premature infants. This includes a mask completely covering the nose and mouth, sterile gowns, and scrubbing and sterilizing the hands and exposed surfaces of the arms of all persons before they enter the premature infant's room. Persons having respiratory infections, as a common cold, should under no circumstances be allowed to handle prematures. A premature will contract a respiratory infection and be so weak as not to cough at all and die of pneumonia. This accounts for a large number of apparently sudden deaths in premature infants. In a like manner no person with gastro-intestinal infection should handle a premature. A diarrhea may be very mild to an adult, and sufficiently severe to cause death in a premature infant.

In summarizing, we are dealing with the most frail and delicate member of the race, who requires skilled care in handling, and who must get and continue this skilled care early in life to live and to reduce the high mortality rate for his group. In addition to intelligent gentleness in handling, he

is apt to acquire infections, particularly respiratory and gastro-intestinal diseases. Many feeding problems arise. The weaker prematures are unable to nurse the mother's breast and frequently artificial food, or breast milk from another source has to be provided. He is frequently so weak that he has to be kept alive by emergency measures, as gentle artificial respirations, the control of his body temperature by controlling the temperature of an incubator, oxygen, stimulants, etc. And finally is that indescribable judgment that allows us to do enough to keep him alive, and still not do too much and cause harm to him.

DISCUSSION ON PAPER OF DR. WILLIAM WILLIS
ANDERSON

Dr. Wm. A. Mulherin (Augusta): I have enjoyed Dr. Anderson's excellent paper. He covered his ground thoroughly on an important subject. As he mentioned, the Georgia Pediatric Society has made it one of its major subjects and devoted its activities this year to the premature infants. I am glad to say that the State Department of Public Health is collaborating with the Georgia Pediatric Society.

Now I don't expect to add anything new to what Dr. Anderson has given you. What I would like to do is to stress some of the points that he made and reduce in a measure to a practical basis some of those points.

I think a very important point in discussing prematures is to be able to satisfy a mother's mind when she says, "I know this child ain't premature, doctor." The doctor could say, "I know he is premature" but it doesn't matter a darn whether the child is premature or not. You have a yardstick that you can apply and if a child weighs less than five and a half pounds and measures less than 17 inches, that child needs special care whether it is premature or a congenitally weak child. You have some practical way of deciding if the child does need special care. Oftentimes it means saving a life to recognize it.

Now that yardstick should be applied and I think also in handling prematures there ought to be one predominating idea in our minds—that that child is in a world it shouldn't be in. It ought to be in its mother's womb. Our care of that child should be directed toward creating a condition simulating the condition in the mother's womb. You find a steady, uniform steam of the body and that kills more prematures than anything else. The mistake we make is bathing premature babies. They should maintain body heat. That is of first importance. They should maintain the heat in the mother's womb.

The next thing is to nourish the child properly. Its respiratory system and its brain aren't ready for extra-uterine life and we should simulate in every way the condition that prevailed there and then avoid infections. The child has no noise, it is warm and its mother nourishes. Its digestive organs are not ready to func-

tion but have to function to maintain life. That is the whole thing in the success of treatment. In a few words—maintain body heat, feed properly and avoid infections. Don't bathe that baby that weighs less than five and a half pounds and measures less than 19 inches, or 17 inches—it is arbitrary—the average measurement is 20½ inches. Keep noisy people out of that room. I don't see what in the name of the Lord attracts people to look at premature babies. They all want to see a premature baby. They look at the baby. They sneeze, give the baby an infection and oftentimes it means death to that baby. The baby should be fed slowly. I think at times we push diet. We want to get one-third or one ounce a day. We should be perfectly satisfied to break even and get a few more days to the credit of that baby and I think we get better results if we don't crowd a certain standard of feeding. Keep the baby warm with the proper moisture in the room. I think those are some practical points that seem to be in order in discussing this paper.

Dr. Helen Bellhouse (Thomasville): I enjoyed Dr. Anderson's paper. I didn't know so much could be said in so short a time. I listened to his paper, and being a country doctor, several things occurred to me. I wondered how many of the 3,000 to 3,500 babies born in Georgia each year are born in the country. As Dr. Anderson brought out, 2.70 per cent of the babies in Georgia are delivered by midwives. Is that correct? In our county, it is 65 per cent. With that in mind, I realize that the Georgia Pediatric Society will have to enlist the cooperation of other organized groups in considering these prematures, rather than just ourselves.

The State Health Department is helping in innumerable ways now, but we have a large group of midwives and although the State Health Department does have pretty good control over most of them, we as doctors can work with those midwives, too.

Another thing we have to think of is prevention. I think a large majority of our premature deliveries can be prevented. In doing that we have to go back to the obstetrician and to the general practitioner who are giving prenatal care to these mothers. Some people are not drawing Wassermanns. I think every woman has a right to have a Wassermann drawn and if they don't feel that way to start with, it is our obligation to make them feel that way about it. It is surprising how many are interested and appreciative of having that procedure done. In the clinic in Thomas County I think I am correct in saying that 15 to 20 per cent of the women attending have syphilitic conditions of one sort or another. That is a large percentage and gives a large possibility for premature deliveries.

Further than that, we have to keep ourselves acquainted with what is the proper therapy. Unfortunately, there are a great many people who need to know more proper therapy of syphilis and they are the ones who do not come to these meetings, but we can keep on talking about that and gradually improve that. Some unfortunately feel that giving six or seven treatments and getting a negative Wassermann is curing syphilis. We won't get very far on that basis.

Another help in prenatal care is the many advances that make it possible to avoid hemorrhages which are a very big cause of premature deaths. They are most susceptible to that. As you know, death is probably due to intracranial hemorrhage.

I think one should come to these meetings with a certain sense of humility and sometimes bring our partial failures and let others help with them. I have in mind a three pound, eight ounce baby brought to the hospital in Thomasville nine days after delivery. The one incubator we had in the county was already in use. We had a room kept at 84° which was satisfactory. The baby's rectal temperature stayed at 97 and 99 and we knew the proper heat was there but the one thing we did not have was the proper moisture. We were giving fluids every day. We would go back about six o'clock and there was no vomiting, no diarrhea. The baby looked smaller in the morning. We were then able, after two weeks, to get an incubator through the State Health Department and it had the proper moisture and the weight curve went right on up very rapidly and we would no longer see a poor withered thing without moisture. Unfortunately, it is easier to talk success than to achieve it, particularly if you have no special premature ward, as very few places do have.

The lack of masks was the cause of the baby's death. The colored nurses were very conscientious and worked for two months on Johnny and fed him every two to three hours and did everything they could possibly do except wear a mask and it was almost impossible to achieve that, and that was Johnny's end. Fortunately we were able to get an autopsy and I was able to take that to these nurses as proof positive of the cause of the failure of all the work they had done and I think if we have another baby this year that is premature that they will work out masks. Five years from now we have to do all that educational work over again.

We hope we will all work together and try to prevent first, premature deaths, and then take care of the premature babies.

Out in the lobby you will see a simple display tacked on Dr. Anderson's exhibit that is a product of a lay organization to my program. It is practical. It is all there, everything that is needed and that will help Thomas County serve Thomas County prematures born at home or out in the country.

Dr. T. Boling Gay (Atlanta): In view of recent work on anoxemia with dive bombing, I was particularly interested recently in reviewing a little on the subject of resuscitation of prematures and in connection with this, one of the best things to give is oxygen and get the patient to breathing well and as we realize in prematures' lack of breathing, that they just stop breathing and that it will not start again by their having excessive carbon dioxide. It is really a failure of the respiratory center to work. The patient dies and stays dead, until he has started again.

Logically, we can see the consensus of opinion now is oxygen, as Dr. Anderson mentioned in his paper; oxygen is the thing to give him to breathe rather than carbon dioxide and oxygen because he doesn't respond readily

to carbon dioxide. He really accomplishes more by your stimulating him and giving artificial respiration and then giving him oxygen to breathe. That was very forcibly impressed on me just about two days ago. I was in the nursery with students. One of the students delivered a premature baby and said that he had been watching him but when he came back there, the baby had stopped breathing and was blue. He left to get a stethoscope to see whether he was dead or not. When he came back three or four minutes later, the infant had stopped breathing. He gave it artificial respiration and impressed on the other men in the group the necessity of not going off and leaving the baby there to stay dead.

How much harm anoxemia does to a baby's nervous system is hard to estimate, but it must do as much harm as it does to an aviator who suffers from dive bombing and we do want to have something adequate to give the premature artificial respiration. I asked this group of men how they would give artificial respiration, particularly to a premature, and each one of them had a different way. One was going to pick him up and double him like a jack knife, he said; and the others said they would press on him and give all the Red Cross first aid forms of artificial respiration. Actually, I think the generally accepted ideal way to give artificial respiration to the premature, the way that will disturb him least of all, is to flex his thighs on his abdomen and pull them out again and start him to breathing that way and I think these men all appreciated having that point. I think maybe this procedure might be of interest to others.

Dr. W. W. Anderson (closing): I'd just like to say that most of this actual work came through the Health Department. I wish we had had time for Dr. Bickerstaff, Dr. Abercrombie and Dr. Reece to speak. These men are making a survey of the State in cooperation with the State Pediatric Society, of all the hospitals to get what information we can. We hope in that way to help reduce the mortality. I am sure that answers Dr. Bellhouse's question.

It is awfully difficult, as Dr. Mulherin pointed out, to say which is premature and which is not. We don't know how many are born in the hospital and how many in the country. It may take some years to get all this information together and find out which is the best way to tackle this problem. We are sure of this though, that the most ideal way is just to have educational programs in this manner, and I am glad to have the discussion. I want to thank the speakers for so intelligently discussing this paper.

SCHEDULE FOR TWENTY WAR SESSIONS ANNOUNCED BY AMERICAN COLLEGE OF SURGEONS

New developments in military and civilian medical and hospital service will be brought to members of the medical profession at large, and hospital representatives, through a series of twenty War Sessions, beginning March 1, to be held throughout the United States under the sponsorship of the American College of Surgeons with the cooperation of other medical organizations and of the Federal medical services.

MEDICAL ETHICS

JOHN W. SIMMONS, M.D.
Brunswick

"The fear o' hell's a hangman's whip
To haud the wretch in order;
But where ye feel your honour grip
Let that aye be your border."

—ROBERT BURNS

In these strenuous times when moral and spiritual values seem to be throughout the world at the lowest point of any time in the Christian era, so-called; your Committee on Scientific Work deemed it wise that some such paper as this be presented at this session. The selection of its author, I am sure, was made with no idea of any especial exemplary professional conduct as might be expected; but, I suspect, because he had at times spoken out through our Journal on certain breaches of professional ethics as had been called to his attention, and, on this account and on account of the office which he holds,—now unique among state medical associations,—has become somewhat of a censor morum.

On making inquiries of the American Medical Association and some of its officers regarding the present need for instruction on ethics, I have been informed that never before during the same period of years have there been so many inquiries regarding specific ethical principles as there have been during recent years. My informant volunteered the opinion that many of these inquiries came from those who were not so much interested in the strict observance of the spirit of particular ethical pronouncements, but in order to find out just how far they might go and still be within the letter of the laws of decency.

So, recalling the little quatrain of Bobby Burns, with which this little talk with you was opened, there does appear to be a distinct need for more "fear o' hell," or else "honour grip." Those who would still preserve the general reputation of the profession must enter boldly the lists to daringly defend the dignity of decency and salvage the sacredness of sacrificial service from

the occasional commercialism and, shall I say, even more boldly, a temporary boring under the very foundations of necessary ethical interrelationships, that occasionally crop up among our own members of organized medicine?

You may never have to face a court of law, nor even a tribunal of your fellows, but you should thank God if you still have a conscience bold enough to condemn you, or a soul not yet fireproofed against the heat o' hell.

Just as the Sermon on the Mount forms the basis of all Christian or civilized relations between man and Deity and between man and his fellows, so does the traditional "Oath of Hippocrates," promulgated some four centuries prior to the greatest sermon ever preached, form a primitive, yet substantial basis for our ethical practices. And the modern, as well as the mediaeval elaborations of these principles give us the highest standards of any business or profession in the world.

Some of us may have not heard this oath, nor read it, since our graduation. It might not be amiss to quote it in its ancient and pagan translation; and hang it framed on the walls of our memories:

"I swear by Apollo, the physician, and Aesculapius and Health, and All-heal, and all the gods and goddesses, that, according to my ability and judgment, I will keep this oath and stipulation; to reckon him that taught me this art equally dear to me as my parents, to share my substance with him and relieve his necessities if required; to regard his offspring as on the same footing with my own brothers, and to teach them this art if they should wish to learn it, without fee or stipulation; and that by precept, lecture and other modes of instruction, I will impart a knowledge of the art to my own sons and to those of my teachers, and to disciples bound by a stipulation and oath, according to the laws of medicine, but to none others.

"I will follow that method of treatment which, according to my ability and judgment, I consider for the benefit of my patients, and to abstain from whatever is deleterious and mischievous. I will give no deadly medicine to anyone if asked, nor suggest any such counsel; furthermore, I will not give to a woman an instrument to produce abortion.

"With purity and with holiness I will pass my life and practice my art. I will not cut a person who is suffering with a stone, but will leave this to be done by practitioners of this work. Into whatever houses I enter I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief and cor-

ruption; and further from the seduction of females or males, bond or free.

"Whatever in connection with my professional practice, or not in connection with it I may see or hear in the lives of men which ought not to be spoken abroad, I will not divulge, as reckoning that all such should be kept secret.

"While I continue to keep this oath unviolated, may it be granted me to enjoy life and the practice of the art, respected by all men at all times, but should I trespass and violate this oath, may the reverse be my lot."

In the first paragraph of this oath we find the principles that should govern the selection of the students of medicine according to their fitness as to character, moral standing and aptitude, as well as intellectual worth and "none others," that there may be a free and untrammelled interchange of instruction in remedies, technics and instruments of healing among all practitioners of the art and science.

The second paragraph of the oath confines responsibility for proper medication and care directly on the physician, who should steadfastly refuse dictation either from laymen or lay organizations that might seek to interfere with his judgment and responsibility.¹ Science has placed in our hands chemical and physical agents powerful for good, but equally powerful for harm. Let us be as ethical as was Hippocrates in their use, knowing full well just how and when to employ them. The little superficial knowledge, so dangerous to the laity, yet fed to them by social demagogues, under whose attacks it is so hard for us to maintain our dignity, tempts many of us to rush to the cover of usually futile explanations, when we should condemn it, as well as the greed of a few of our own members which contribute to the same results, for the selfishness and intolerance every thinking man among us knows it exhibits.

In the third paragraph of the oath we find mentioned the specialists in the removal of stones, which prompts me to say, blessed is the patient whose physician recognizes his own limitations, and is neither afraid nor ashamed to acknowledge them, and refer his patient. And, I may add, accursed be that specialist who would in any way diminish or destroy the confidence

of the referred patient in his old family doctor. This naturally brings us to the subject of fee splitting. Time will not permit the quotation of an excellent editorial appearing in the *Atlanta Journal* of February 3, 1942, commenting on Dr. Cabot's thought-stimulating book, "The Patient's Dilemma," and Dr. Maximilian A. Ramiriz's (now president of the Medical Society of the County of New York) solution of the problem of fee-splitting by a more or less legalization of the practice. The *Journal* submits a hypothetical question which immediately opens up the probability of competitive bidding for the proposed "legitimatized" kick-back to the referring doctor, and it is the patient that "pays and pays." No gentlemen, let there be no fee splitting, no "hush-hush," no hand behind the back, even though financial embarrassment may seem a compelling reason.

Speaking of limitations, the system of "trial and error" has no place in the practice of medicine or surgery on human beings; for no lasting and conscientious satisfaction can be obtained by recounting over and over the few successes we might have had, and trying to forget the more than average failures we experienced from such methods.

Now, speaking of consultants, God deliver me from the man who always pats me on the back and agrees with me, whether right or wrong; he does neither me nor my patient much good. Unfortunately many patients and members of their families do not recognize the broadmindedness of a physician who requests consultation — and it is always better to request it before waning confidence forces you into it — but tact and consideration primarily for the patient's welfare, as well as the strengthening of confidence in the attending physician, should prompt the consultant in every way to be on his guard against the family inquisition. Some of you have had the bitter experience of having a consultant, in all the importance of his preferment because of his wisdom, professional skill and financial success, blurt right out loud in the presence of the patient and family quite a lot of embarrassing questions as to diagnostic procedures;

laboratory tests, whether relevant or irrelevant to the investigation at issue; questions that might have reference to history you might not have obtained; volunteered comments on medication or other procedures; all of which tend to make the patient and family wonder if they have not all along had the most ignorant doctor in town as a family physician. Good old doc, to be sure, but he just hasn't kept up with the times. Result: The consultant has filched another family for his practice. The good old family doctor considers himself lucky if he is not sued for malpractice.

"There is a spirit of competition considered honorable in purely business transactions which cannot exist among physicians without diminishing their usefulness and lowering the dignity of the profession.² Such competition is likely to be evidenced in two ways: directly by efforts to divert to one's self the practice of others, and indirectly by advertising." Both of these practices are highly unethical. We have been informed that society and city editors of some newspapers are commissioned by owners and operators of private hospitals under their own names to chronicle in the press arrivals and departures of their patients to and from the neon display sign institutions, with the exception of such departures as were directed by a local or foreign mortician. W-e-l-l, this practice may not be exactly unethical; we would just dismiss it as being in bad taste, especially to the other physicians and surgeons in the home town, who happened not to be on the staff.

Physicians lecturing to or writing for lay public should be especially careful in avoiding any suggestion of self-aggrandizement or advertising; and, should by chance, any of their hearers or readers make inquiry concerning advice or treatment, such should, by all means, be referred to their family physicians. Equally reprehensible as the opposite attitude would be is the use of industrial, insurance, or other partially restricted practice in selected service clientele, as a means of gaining entree into the family practice of any such industrial patients or applicants as might come before you. Of course, in emergencies calls should be made

promptly on patients of other physicians when such physicians are not available; but at the earliest possible moment the patient should be turned back, with full and free information as to the service rendered, given in private to the regular physician. The finest reciprocity in such matters would suggest that the fee or honorarium be returned or paid over to the family doctor; but local custom should rule in such matters. The same might be said of emergency treatments in accident cases, either in or out of the hospital; that is, the patient be given the choice of his physician, or where that choice is known, after such emergency the patient should be immediately referred.

Now, briefly I will quote some specific rules of ethics which, surprising to say, come from Nazi Germany and Hungary.³

"A doctor should manifest for his colleagues the same respect and consideration that he expects for himself; unwarranted disparagement of the professional knowledge or the therapeutic methods of a fellow physician is highly unethical.

"It is illegal for a doctor to receive compensation, monetary or otherwise, in return for recommending to his patients another doctor or institution.

"Commercial advertising and soliciting in any way connected with medical practice is forbidden to physicians.

"No doctor may request or receive any gift or favor in exchange for his prescription or recommendation of a certain drug. Only a reasonable number of pharmaceutical trade samples should be requested or used; the physician must never offer these samples for sale.

"A doctor must not bestow favors of any sort or hold out a prospect of favors for the purpose of obtaining some professional advantage.

"In general only the following may appear on a sign: doctor's name, academic title (Dr. M.D., etc.) official designation as general practitioner or specialist, office hours, telephone number. No specialty may be announced unless all or the major portion of work is confined to such specialty. The sign must not be fashioned or displayed in a way that may become obtrusive; its dimensions must not exceed 35 by 50 cm."

Now, from Hungary, the general rules of the Hungarian National Medical Chamber "deal with consultation practice, the relations of physicians to patients and to fellow practitioners, abortion and birth control, free treatment, the problem of professional secrecy, and the relation of physicians to medical societies. The whole draft is pervaded with the point of view of preserving medical dignity."

Thus, even in the lands of the dictators, the profession of medicine, at least before the holocaust of war, was striving to make itself the best, the most solid and, perhaps,

the last bastion of decency and dignity, ethically, morally and spiritually. So, let us determine in all truth and soberness to declare for the profession, now threatened on every side by commercialism and by conscienceless, demagogic politicians within and without the profession, as Isaiah declared for his people: "In righteousness shalt thou be established."

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FUNCTIONAL DIGESTIVE DISEASE AS SEEN AT LAWSON GENERAL HOSPITAL

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Lawson General Hospital has been functioning for fourteen months. During this time one of the most outstanding gastro-enterologic problems has been the diagnosis, treatment and disposition of patients with functional digestive disease. Table I shows the relation of these cases to the total cases on the section and to the total in the hospital. As may be seen 1 of every 3 patients admitted to the Gastro-enterologic Section during the year had no organic disease of the digestive tract. This percentage would rise slightly, if the patients with typical symptoms of peptic ulcer with negative roentgen studies of the stomach, hookworm carriers whose vague abdominal distress was relieved by anthelmintic treatment, and the postalcoholic gastro-intestinal upsets were included. However, the purpose of this paper is to outline the care and disposition of those individuals who cannot function as soldiers because of inability to tolerate the general Army diet without recurrence of symptoms.

Table II shows a classification of the 137 patients listed for diagnostic purposes as "intestinal indigestion." Of these 37, or 27 per cent, had never had symptoms prior to their Army service. The group classified as true irritable colon had symptoms of either diarrhea or constipation, usually arising

from some specific event such as an acute infectious diarrhea, food poisoning or an operation with subsequent acquisition of the cathartic habit.

The second group, called duodenitis for the purpose of this discussion because of upper abdominal symptoms without demonstrable x-ray lesions or hyperchlorhydria and without bowel symptoms, might also be called chronic postalcoholic indigestion. They were not called gastritis because we reserve that term for only those cases where actual gastritis is seen by gastroscopy or by x-ray. This was not found in these cases. The group is also separated from that comprising the acute upsets following an alcoholic bout, because usually the history is present of the habitual use of alcohol over several years, with remissions and exacerbations of the epigastric discomfort in direct relation to the use of alcohol. Possibly some in this group represent a "pre-ulcer syndrome" and will ultimately present themselves to the doctor with a peptic ulcer. Little is known regarding such a syndrome, but it is conceivable that by proper training in good dietary habits, such individuals may escape forming a peptic ulcer.

The other three groups, the psychoneurotics, the inadequates and the morons, presented the same types and varieties of symptoms as did the others, but because of their mental states, little could be done for permanent relief of their symptoms, nor could any training in dietary care be given. The group with the low mentality, however, made in general excellent response to dietary care in the hospital, but it was not considered possible that they could remain symptom free when released from the hospital. The patients in the other two groups were transferred to the Neuropsychiatric Service for psychotherapy and disposition.

Diagnosis

All patients admitted to the section received adequate study but the patients in the group under consideration required more careful, and elaborate study than any other group. Our efforts to find organic cause for these patients' symptoms take much more time and thought than the re-

sults show. Routinely these patients receive a roentgen examination of their entire gastro-intestinal tract, a gallbladder visualization, proctoscopy, gastroscopy, neuropsychiatric consultation, gastric analysis, blood counts, blood chemistry, urinalysis, stool examinations and any other laboratory and special examinations which we consider may benefit the patient, or enlighten us as to the cause of his illness. Occasionally a spectacular improvement in a patient with digestive symptoms is brought about by proper treatment of a chronic upper respiratory condition or by the use of proper dentures.

With the gastroscope we are enabled to diagnose gastritis in many patients who otherwise would be separated from the service with the stigma of gastric neurosis attached to them. This is a source of satisfaction to us and to the patient who usually has had his symptoms for a number of years, has perhaps been studied elsewhere, without any positive diagnosis. Many individuals feel that they can tolerate their symptoms if they can get an inkling of the cause.

Proctosigmoidoscopy may reveal a chronic inflammatory condition which otherwise might be overlooked, and which may be treated with the subsequent return to duty of the patient.

Treatment

Since all patients admitted to the section require study which usually lasts for several days, a dietary regimen must be established before a diagnosis is made, simply to keep the patients comfortable. The diet used is as shown in Table III. This is divided into six parts: the first part is similar to the feedings on the Sippy regimen and may be used in two-hourly intervals without any particular danger to the patient no matter how sick he is. If he cannot tolerate this diet, he should be given nothing by mouth until some idea of his condition is formulated.

The second portion of the diet will seem strange to many persons, and should not be used in a peptic ulcer regimen, but is a useful addition in a bland, low residue diet, since it adds variety and provides greens which otherwise would come very much

later in a progressive diet. Lettuce and celery have no residue that is detectable in either gross or microscopic stool studies after ingestion.

The other four parts of the diet require no explanation; they progress to foods containing some residue, but never a large amount.

For the patients with functional digestive disorders, our first consideration is rest both in general and specifically for the alimentary canal. The irritable colon can manifest itself in a variety of ways, but usually by either diarrhea or constipation, or alternate diarrhea and constipation. Rest is the primary medication to be used in any case. In addition, a progressive bland low residue diet, belladonna or its derivatives or one of the synthetic antispasmodics is used. Hot water is given by mouth every two hours and a hot water bottle is applied to the abdomen at regular intervals. In some cases of diarrhea the antispasmodics and hot water may increase the frequency of the stools and should not be used. Sedatives are used as required to relieve nervous tension and prevent insomnia. Laxatives and stimulating enemas are not used. If a patient does not have a stool for 24 hours, a rectal examination is made and if the rectum is found empty, nothing is done. If however, a stool is in the rectum, the minimum stimulus is used to obtain its passage. This will consist of either a small (three ounces) warm oil retention enema, a very small (six ounce) tap water enema, or if the stool is large and several days elapsed without a bowel movement, a three-pint normal saline enema may be given. Only under exceptional circumstances will soap or other harsh but standard enema ingredients be used. It is to be emphasized that this method of treatment is effective only if carefully supervised and if the medical officer in charge of the ward is willing to carry out the frequent local examinations necessary to inform him as to the progress of the patient.

The results may be seen in Table IV. As would be expected the best results were obtained in the group with no serious mental difficulty. The results in the other groups

show a rapidly diminishing return for the effort expended, yet the patients in these groups deserve and get as careful attention as the others. The reason for this is that if we are in any way able to relieve symptoms, the neuropsychiatrist has a better opportunity to acquire the "rapport" with the patient so necessary if he is to obtain any results from psychotherapy. We are not satisfied to make simply a diagnosis and separate the patient from the service. These men have, through no choice of their own, been taken from their habitual environment where most of them had been at least getting by, and thrown into a situation they have been unable to cope with. Those who cannot be rehabilitated are entitled to knowledge concerning their condition and some outline for living, which will enable them to resume civil life in some useful occupation. A protected environment in which these patients may control their diets will be of value in rehabilitation. It is not so much the underlying nervous factors which make these patients unfit for the military service as it is their inability to subsist on the general army diet without recurrence of symptoms, and the fact that they usually have no clear concept of what to eat to avoid discomfort. Accordingly each patient at discharge is given a copy of the diet and instructions regarding his care.

TABLE I

Total Admissions—	
Aug. 1, 1941 - Aug. 1, 1942.....	5220
Total Admissions—Medical Service—	
Aug. 1, 1941 - Aug. 1, 1942.....	3022
Total Admissions—G. I. Section—	
Aug. 1, 1941 - Aug. 1, 1942.....	463
Total number with functional digestive	
disease	137 or
	30%

TABLE II

Irritable Colon	50
Duodenitis	25
Constitutional Psychopathic States:	
(a) Inadequate personality	33
(b) Mental Deficiency	11
Psychoneurosis	18

As may be seen from Table IV we were able to return to duty only a few patients diagnosed as having constitutional psychopathic states. The 6 formulated as inferior

had become asymptomatic, and it was felt that some use might be made of them. The 4 mentally deficient cases had so-called borderline intellects (mental age 9-11) and the neuropsychiatrist thought they were capable of doing manual labor or other simple tasks. None of the psychoneurotic patients was able to return to duty, but all were separated from the service.

TABLE III

LOW RESIDUE DIET FOR ANY PURPOSE

DIET I.

1. Cream of wheat or well cooked rice; soft eggs—poached, boiled, baked, scrambled in cream in top of double boiler or in baked custard; bread and butter; toast, toasted or plain Uneeda or saltine crackers, macaroni or spaghetti boiled or baked with milk, (no cheese or tomatoes); milk, tea, cocoa or coffee, cream.

Add to above

2. Lettuce, without dressing, and celery uncooked or boiled.

Add to above

3. Potato (baked, mashed or riced) once or twice daily. Meat or fish (small quantity) no pork or veal, no mackerel, salmon, clams or scallops. May have broiled lamb chop, broiled beef steak, broiled or roast chicken, rare roast beef or roast lamb, (no gravies).

Add to above

4. String beans, peas, asparagus, spinach, broccoli.

Add to above

5. Carrots, cauliflower, beets, winter squash, oatmeal.

Add to above

6. Cooked fruits, soups, soft puddings, sponge and angel cake. American cream or cottage cheese. Mushrooms, artichokes (no Hollandaise dressing).

Sugar and salt may be used with this diet.

TABLE IV

	Total	Duty
Irritable Colon	50	32
Duodenitis	25	11
Constitutional Inadequacy	33	6
Mental Deficiency	11	4
Psychoneurosis	18	0

Our criterion of cure is very simple. If a patient becomes asymptomatic on the ward, on the low residue diet, he then proceeds to the Patients' Mess Hall for his meals. Here he goes to a special diet table where his meal is served to him. This is carefully supervised by the dietitian and is essentially the same diet as that which he received on the ward, but he is eating again among his fellows, who, though still patients, are ambulatory and in a fair state of health. If the patient suffers no recur-

rence of symptoms while eating at the special mess tables, he is then sent to the general mess, where he serves himself, cafeteria style, and has unlimited freedom as to his diet. If, after a few days he remains asymptomatic, he will be able to tolerate the mess at his organization and is accordingly sent to duty. No patient returns to duty who cannot tolerate the general mess diet.

Summary

1. Thirty per cent of the patients admitted to the Gastro-Intestinal Section at Lawson General Hospital, Atlanta, Georgia, during the year Aug. 1, 1941, to Aug. 1, 1942, had no demonstrable organic disease of their digestive tracts, but were unable to subsist on the general Army ration without recurrence of symptoms.

2. These patients were sub-divided into five groups: Irritable Colon, Duodenitis, Constitutional Inadequacy, Mental Deficiency, Psychoneurosis.

3. In all cases the fundamental theory of treatment is rest, for the patient as well as his alimentary tract. This is accomplished by means of bed rest, bland, low residue diet, antispasmodics, heat to the abdomen and sedation when necessary.

4. The best results were obtained in the group with no serious mental defect. Thirty-two out of 50 patients with simple irritable colon were returned to duty; 11 out of 25 patients with duodenitis were returned to duty. The patients with constitutional psychopathic states were less responsive, 6 of 33 patients diagnosed as constitutionally inadequate and 4 of the 11 with mental deficiency were returned to duty. There were no psychoneurotics capable of remaining in the service.

5. The patient was considered cured and capable of returning to duty if he could tolerate the general mess diet for a week or more without recurrence of symptoms.

General expansion and intensification of the nationwide fight against infantile paralysis, with progress made in scientific attacks on the crippling disease, are disclosed in the fourth annual report of the National Foundation for Infantile Paralysis, issued by Basil O'Connor, president of the Foundation. The financial statement reveals 77 grants and appropriations totaling \$1,142,009.35 for the fiscal year ended September 30, 1942.

THE ARTHRITIC PROBLEM AT LAWSON GENERAL HOSPITAL

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As the title is meant to convey, the problem of arthritis in the Army is a very real one, and occupies as important a position, if not more so, than in civilian life. As one would readily deduce, a large proportion of the arthritic disease seen in the Army is represented by the arthropathies which affect the younger age group. The degenerative arthritides are seen in the comparatively small group of older personnel, although in the future this group may become more important, especially if older men are drafted for service.

This study is meant to bring before you certain phases of this picture peculiar to the Army per se, and to the Army as represented during the present state of war.

Arthritis, by and large, is a chronic disease, and one in which a prolonged disability can be projected. As such, the majority of these cases are referred to one of the general hospitals of the Army whose facilities are specifically adapted toward the diagnosis, treatment, and disposition of chronic disease. The majority of our cases are referred to us from station hospitals or other units who would have occasion to temporarily hospitalize a disabled soldier. The period of time that a patient is hospitalized and the number of times that he may be hospitalized for arthritis at one of the smaller units may vary considerably before he is referred to a general hospital. The average length of service of soldiers with atrophic arthritis in our study, before reaching Lawson General Hospital, was 11 months, with extremes of 1 day and 5 years.

Many cases of arthritis, secondary to trauma or surgical in nature, are treated on the orthopedic section of the surgical service. The cases included in this study, excepting rheumatic fever which is omitted, are medical in nature and comprise the

arthropathies seen in the general medical section of the medical service over a 15-month period ending Oct. 1, 1942.

It perhaps would be helpful to briefly present the classification of arthritis that we employ. This is the commonly accepted division into the infectious and non-infectious varieties. Under the infectious variety we have both the specific and the non-specific types. In specific infectious arthritis the etiologic agent is known, i.e., gonococcus, tubercle bacillus, streptococcus, meningococcus, staphylococcus, etc. In the non-specific type the causative agent is not known and under this variety we classify the rheumatoid or atrophic arthritis and rheumatic fever. Under the non-infectious classification we group hypertrophic arthritis, post-traumatic arthritis, allergic arthritis, gout, and psoriatic arthritis although there may be some disagreement concerning the last entity.

There are numerous theories concerning the cause of arthritis with which I will not burden you. A recent thorough review of this subject by the American Rheumatism Association in the Aug. 1, 1942, issue of the *Journal of the American Medical Association* can be referred to. In the specific infectious arthropathies and certain of the non-infectious group, such as gout, we either know the exact cause or are fairly sure of the pathologic and physiologic changes in the tissues. This does not hold true for the two principles, atrophic and hypertrophic arthritis. Here we are reduced to theorization or statements regarding the importance of constitutional diatheses or the end results of stress, strain and ageing. In our group one might speculate concerning the effect of changing from relatively sedentary occupations to the active Army life. Such a change involves long periods of marching and considerable exposure to the elements. Certainly, latent tendencies would become manifest and attacks of arthritis might be precipitated under these conditions more so than in civilian life.

At this time I should like to present some statistics indicating the tremendous importance of arthritis as a disease. In a recent survey by the U. S. Public Health Serv-

ice it was revealed that rheumatoid diseases in general affected 6,800,000 individuals, representing about 1 in 19 persons in the total population yearly. This number exceeded that of any other type of chronic illness, and represented for example, almost twice the morbidity of heart disease. Of this number, 147,000 were regarded as permanently invalided, and that such disorders resulted in the loss of 97,000,000 days of work annually. It is further revealed that over 50 per cent of the disability incident to rheumatism is found in patients under 45 years of age. Atrophic arthritis is the greatest offender in this category, and is well known for its disabling effects.

In this study 105 cases of arthritis of various types are included. During the period from the latter part of July 1941 to Oct. 1, 1942, 1,189 patients were admitted to the general medical section of the medical service. These patients were, in the main, new admissions to the hospital, although many were transfers from other sections of the hospital. Thus the cases of arthritis made up 9 per cent of the admissions to the section and approximately 2.8 per cent of the total admission to the medical service.

Of the 105 cases listed, 83 were considered atrophic arthritis, 3 psoriatic arthritis, 6 gonorrheal arthritis, 9 hypertrophic arthritis, 3 post-traumatic and 1 as gout. No patient with palindromic rheumatism was seen.

The average age of our cases of atrophic and psoriatic arthritis was 27 years, hypertrophic 44 years, gonorrheal 23 years, post-traumatic 29 years, and our 1 case of gout was 44 years of age.

Almost every state in the union was represented so that geographic distribution apparently had very little significance.

The cases of hypertrophic arthritis almost entirely were seen in Army personnel who were being considered for retirement on the basis of 20 or more years of service. Thus, in the remainder of the paper we will concern ourselves principally with the larger group of atrophic arthritis.

The criteria of diagnosis by which we classify our cases is important.

As indicated before, our cases comprise a young group, many of whom have had no previous history of arthritis. Therefore, characteristic deformities, ankylosed joints, or far advanced x-ray changes may not be present. Broadly speaking, we include as arthritis, involvement of the synovial membrane, cartilage or subchondral bone. Periarthritic involvement is usually present as well. Many of our cases have only a history of joint swelling and persistent arthralgia. These have usually had a period of hospitalization elsewhere and are relatively quiescent upon arrival. Far advanced x-ray changes were seldom seen. Minor changes, such as decalcification about the joint, with or without definite erosion, were seen in 50 of our cases of atrophic arthritis while 33 cases did not show significant changes. All of the cases of hypertrophic, psoriatic and post-traumatic arthritis revealed pathologic changes by x-ray. One of the three cases of gonorrheal arthritis showed evidence of arthritis by x-ray. Other aids in diagnosis and prognosis aside from a careful history and examination are the sedimentation rate and frequent blood counts. A word can be said here concerning gonorrheal arthritis. The low incidence in this group is probably due to the early and effective treatment of gonorrhea. When a question of diagnosis arises, however, the diagnosis of gonorrheal arthritis is not made unless unequivocal evidence of the presence of gonococci is produced. The importance of this will be seen later when line of duty is discussed.

In the treatment of all forms of arthritis we attempt to be conservative without neglecting the newer adjuncts to therapy in this condition. In the acute stages, with fever, swollen joints, and increased sedimentation rate, the patient is kept at absolute bed rest in order to prevent weight-bearing. During this period particular attention is paid to a complete dietary with added vitamins. Bivalve splints or back braces, depending upon joints involved, are applied in selected cases; not necessarily because ankylosis is anticipated but to provide a mechanical support and relax spastic muscles. Physiotherapy is particularly useful during this stage and con-

sists almost entirely of radiant heat to the affected joint and massage of the adjacent muscles. Effective sparing of the muscles during this stage may save many days later on in overcoming a severe atrophy. As the process becomes subacute, non-weightbearing joint motion is begun. Early weight-bearing may cause hydroarthrosis to persist despite elastic bandages applied about the joint. As the clinical signs continue to show improvement, weightbearing is encouraged and regulated depending on the individual's tolerance. During this period foci of infection which may be present are remedied. Very little improvement has been noted in our cases following removal of infected tonsils or treatment of abscessed teeth and other foci. On the other hand, we believe that these patients are definitely entitled to such treatment although radical improvement is not necessarily expected. In a few cases x-ray therapy to the affected joint has provided relief from pain, although no alteration in the progress of the disease was noted. Brief periods of hyperthermia using fever therapy, or increasing doses of typhoid vaccine, may give temporary improvement. Gold has not been used. Our cases of gonorrheal arthritis were very chronic and had had previous sulfonamide therapy without improvement. These cases responded to physiotherapy alone. Of the 105 cases studied only 2 have not responded to a degree where disposition could be carried out.

Before describing the disposition of these cases, a few statistics concerning veterans of the last war will be given. The late Dr. Philip B. Matz published in 1938 an exhaustive study of arthritis as affecting ex-service men of the last war. Dr. Matz stated that 34,369 ex-service men received some authorized benefit in the form of disability compensation, disability allowance, or retired emergency officers' pay during the fiscal year 1931 for disabilities caused by arthritis. This number constituted 6.4 per cent of all beneficiaries receiving such emoluments. The total cost of this compensation was approximately \$10,116,000 during 1931. Eighty per cent of the 332 bene-

ficiaries in Dr. Matz's series received compensation for partial disability and 20 per cent for total disability with an average for the group of \$39.45 per month.

Therefore, we can see that our responsibility in disposing of these cases is important. We must determine whether the arthritis has occurred in line of duty and is thus the responsibility of the government, or is not in line of duty, and has existed prior to entry into military service. Before disposition may be carried out, the patient must have reached his maximum period of hospital improvement. This varies considerably depending upon the severity of the particular case. The average hospital stay for the 66 cases of atrophic arthritis in this study where disposition had been completed was 111 days. When the stage of maximum improvement has been reached, some type of disposition can be decided upon. In the total of 83 cases of atrophic arthritis 70 either have been or will be separated from the service, 6 were reclassified for limited service, and 7 were returned to full duty.

In determining the line of duty, the history of the particular case and the medical opinion concerning the disease are the principal factors involved. If there is a history of one or more attacks of arthritis prior to entry into military service, and the present attack is considered part of the same disease, then the case is considered to be not in line of duty and to have existed prior to service. On the other hand, with the exception of proven gonorrheal arthritis which is considered not in line of duty and due to misconduct, the infectious arthropathies which originate in the service without previous history are considered to be in line of duty. In addition, extensive changes as demonstrated by x-ray or deformities of such a nature that in medical opinion are not the logical result of or incident to military service may be considered to be not in line of duty if the length of service is too brief to have allowed the changes to develop.

In 66 cases of atrophic arthritis in which disposition had been completed, 40 had previous history of arthritis and were considered as not in line of duty, while 26 were in line of duty. A similar percentage

held throughout, except for gonorrheal arthritis, which is not in line of duty and is due to misconduct.

If such a case is in line of duty and recovery has been complete, an attempt at reclassification for limited service is made. No accurate figures are available with regard to the permanent utility of such a soldier. However, of the 6 such cases reclassified in our series, 2 have returned because of recurrences.

Thus it is seen that the overwhelming percentage of arthritis is separated from the service by discharge with a certificate of disability. This is almost universally true if the disease in question is not in line of duty, since further service might aggravate the condition, and the government would then assume responsibility.

In conclusion, a series of 105 cases of arthritis seen in the general medical section of Lawson General Hospital, Atlanta, Georgia, is presented with pertinent statistics concerning line of duty, hospitalization, treatment, and disposition. The medical officer assists not only in the professional evaluation of the arthritic, but has many responsibilities connected with the disposition of each case. Because of the prolonged disability of the cases in this study and their restricted utility to the military service, a careful evaluation of the history for past episodes of arthritis would be expedient prior to the soldier's induction into the Army.

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The Chamber of Commerce of the United States, Washington, organized a National Health Advisory Council in Washington on February 5. The organization proposes to carry out a broad program looking to health conservation as one of the most important factors in winning the war. It is to consider national health problems in relation to the war program. Speedy production of war material is retarded by disease and physical disability.

PAROXYSMAL TACHYCARDIA OF YOUNG INFANTS

Report of Case

L. MINOR BLACKFORD, M.D.

LEWIS D. HOPPE, M.D.

Atlanta

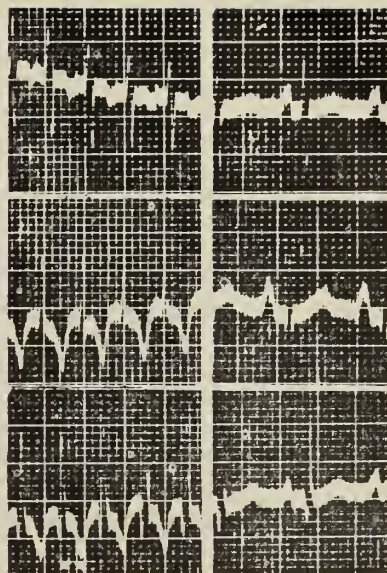
Cardiac disorders recognized during the first weeks of life are usually due to developmental defects, often incompatible with life. There is, however, a functional disorder to be observed at this age which yields promptly to proper treatment but which is apt to end fatally without such treatment: though rare then, this condition is important. Hubbard¹ called it "paroxysmal tachycardia of young infants." In his publication in 1941 he assembled 19 cases (with 6 deaths) from the literature, and reported 9 original cases. All nine of the infants observed by him recovered: eight after the administration of digitalis, one spontaneously. Hubbard is convinced that this condition is often overlooked because 6 of his original 9 cases were observed in one year, and more than that in the year that has intervened² since the publication of his report. Our case is so typical (except for a familial history) that it is presented without preliminary description of the syndrome.

Report of Case

A seven weeks' old male infant was brought from another state to the Eggleston Hospital by his parents who gave the following story:

Born at term, April 28, 1942, he and his mother had been kept in the hospital for two weeks "in order to be sure both were all right." The next day the baby became ill and was taken back to the hospital for two weeks: during this time a diagnosis of pneumonia was made. On June 17 he became ill again with gastrointestinal disturbances, including anorexia, vomiting and borborygmus; he began to breathe fast and became restless and irritable, at times cyanotic. The doctor said his heart had always been too fast. Becoming alarmed about his failure to improve his parents brought him to Atlanta.

The infant was well developed and well nourished: he weighed 10 lb. 6 oz. (3920 Gm.). At rest he appeared pale, but on crying cyanosis became marked. On first locating the apex beat in the anterior axillary line



The electrocardiogram on the left was taken at 10:30 a.m. June 21; that on the right 21 hours later. The former shows supraventricular tachycardia; rate 284. The latter is essentially normal; rate 135. A fourth tracing taken at 7:30 p.m., June 23, showed better looking P-waves than the right cadiogram. The slower tracing does not show block

with the finger tip, a thrill was suggested by the rapid regular impulse; its rate could not be counted either with finger or with stethoscope. The liver came down to the umbilicus. Urinalysis was negative. Hemoglobin was 9.8 Gm., the red count 3,200,000, the white count 13,000; the leukocytes were not remarkable. An x-ray at 6 feet showed moderate enlargement of the heart in all diameters, slight pulmonary congestion and a large liver.

At 10:30 a.m., June 21, an electrocardiogram was done. From this we made a diagnosis of auricular flutter with a heart rate of 284. We ordered $1\frac{1}{2}$ grains (0.1 Gm.) of digitalis by mouth at 11, with a second dose at 5 p.m. During the afternoon he displayed interest in food again and was less fretful. At 5:30 he appeared to be better clinically. At 10:30 that evening the parents considered him well. The electrocardiogram, however, showed but a slight decrease in rate, so we ordered a third dose of digitalis, $\frac{3}{4}$ grain (0.05 Gm.). He passed a quiet, comfortable night. At 7:30 the next morning a third electrocardiogram showed that the rate was 135. The liver was no longer enlarged. A second x-ray that morning showed the heart was perceptibly smaller than 43 hours earlier. Twelve hours later, while the baby was taking his bottle, the heart rate ranged from 98 to 108 and each of us was satisfied that the heart sounds were normal. The father took the baby home on June 23. By this time the temperature, which had been 101.4, had returned to normal. On July 25 we were informed by letter that he was still in the best of health.

Note: The father, aged 29, said that he had been subject to attacks of rapid heart action from his earliest recollection to the time of his marriage in January, 1941. These attacks would come on about once a month, usually in the early morning, and ordinarily lasting half an hour. When working under a heavy strain, without enough rest, or when dissipating, the attacks were more common.

From Emory University School of Medicine and the Henrietta Eggleston Memorial Hospital, Atlanta.

Read before the Fulton County Medical Society, Atlanta, July 20, 1942.

He had learned by experience that at the onset of such an attack he had to lie down if possible, — to sit down regardless of the circumstances. Several times he had lost consciousness during a paroxysm, but he had never had a convulsion so far as he knew. He did not know if he had ever become cyanotic. He had never been observed during an attack by a physician, but he had been examined at other times by a number of doctors who had found nothing wrong. Examinations by us, including electrocardiographic and fluoroscopic studies, were quite negative. He told us that his sister, now 16 years of age, had also been subject to such attacks all her life.

Comment on the Electrocardiograms

The first two electrocardiograms in this case unquestionably show supraventricular tachycardia (the second one, which is not reproduced, was like the first except that the rate was 17 beats slower). Whether this rapid regular rate represented paroxysmal auricular tachycardia or auricular flutter is open to argument. Auricular flutter is not common, and auricular flutter without partial heartblock is rare. In three cases from the literature Hubbard noted partial heartblock and Lewis has written "Several times I have seen flutter in a child of less than 12 months." (Lewis did not give any details.) It would seem to us reasonable to suppose that both the conduction tissue and the myocardium in infants are more irritable than in adults. We also believe that, while it is hardly a matter of practical importance, the burden of proof is on those who argue that a supraventricular rate of 284 is not the result of auricular flutter.

Summary

Paroxysmal tachycardia with rates of from 250 to 350 may occur in young infants. If the paroxysm persist it may result in death from heart failure, though limited experience indicates it will respond promptly to digitalis in adequate dosage and the outlook afterward is good. An illustrative case is reported: this infant received $3\frac{3}{4}$ grains (0.25 Gm.) of digitalis.

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AMA HOUSE OF DELEGATES MEETS JUNE 7

The House of Delegates of the American Medical Association will convene in Chicago on June 7, 1943. *The Journal of the Association* reports in its January 2 issue. This meeting will take the place of the ninety-fourth annual session of the Association, originally scheduled to convene in San Francisco in 1943.

On September 26 it was announced that the San Francisco session had been canceled because of the war demands on the time of American physicians, as well as the transportation problems involved. This cancellation is the third in the history of the Association that such an action has been taken, the other two times in 1861 and 1862, during the Civil War.

The many significant problems confronting the medical profession because of the war, particularly those concerning the provision and distribution of physicians and the provision of medical services for the nation's civilian and military needs, will highlight the problems to be considered by the House of Delegates at its meeting in Chicago next June.

ENCEPHALOMYELITIS FOLLOWING SMALLPOX VACCINATION

Report of Case

R. L. ROGERS, M.D.

W. H. HILL, M.D.

Gainesville

Much of the literature on encephalitis following vaccination against smallpox has come out of Holland. It has been estimated that during the period between 1922 and 1927 the incidence of this disease in Holland was 1:5,000 persons vaccinated.

It is the consensus of opinion that the encephalitis produced by vaccination against smallpox is due to a contamination by another virus. There are those, however, who contend that the virus is innocuous when it enters the body and then becomes activated by certain influences which are spoken of collectively as "para-allergy." The incubation period is most often from seven to fourteen days. Periods as short as twenty-four to forty-eight hours have been reported, however. The patient usually begins to complain of headache and the condition progresses to unconsciousness, with muscular spasms, palsies, etc. The mortality rate given by different authors varies from 40 to 60 per cent. Those patients who recover may show sequelae, such as abducent palsy or paresis of the calf muscles, but such sequelae are not so apt to occur as after encephalomyelitis following infectious diseases such as measles.

There is some familial tendency. We have been told of a father whose first child died from encephalomyelitis following vaccination against smallpox. The father, not wanting to appear too sentimental, had his second child vaccinated with the same results — death. Infants under one year of age usually possess an immunity, and in all age groups the disease usually follows the first vaccination.

Report of Case

D. W., an eighteen-year-old school boy, was admitted to Hall County Memorial Hospital on July 2, 1942, with a chief complaint of nausea and severe headache; he was alleged to have had three convulsions prior to ad-

(Continued on page 52)

THE PRESIDENT'S PAGE

MODERN MEDICINE

The medical profession generally has spent too little time studying business. At one time this trend reached the absurd status where doctors stated publicly that they were poor business men and then smiled indulgently. Some believed the public considered this superior knowledge. I doubt it. However, stocks, bonds, farms and other wild-cat agents certainly prospered by supporting the idea. As a rule, such investments dissipated hard earned funds that should have been saved for family support and old age needs. Young physicians particularly are apt to spend too much of their incomes for the latest model automobiles when they would be just as well off with cars traded in another year or two. These are important considerations for doctors and their families.

Another important matter of greater importance is office equipment, for it means so much to the public. For instance, there are 12 or 13 x-ray machines in doctors' and dentists' offices in Albany which do not include the two at the hospital. Other instruments of precision are in like proportion. All are useful and essential but cost much money to purchase and maintain, which is borne by our patients. What is true here is no doubt the rule throughout Georgia.

If doctors and dentists were properly housed a few such instruments would suffice, and ten times more people could receive the essential diagnostic aids under more expert care at less cost. This would require special training by doctors in all communities. As matters stand many individuals throughout our State are receiving hit or miss treatments, all of whom should have correct early diagnosis.

This may be demonstrated in the field of

tuberculosis where physical examinations are said to reveal only about 25 per cent of the patients actively infected whereas the x-ray reveals practically all and in time to cure, if examined early. Unfortunately in Georgia very little x-ray work was done due to high cost, therefore we shunted it off on Public Health which led to the chest clinics and now to state owned x-ray machines stationed in 30 some odd counties. It is hoped that we may find the treatable patients in this way, for most of them found in general practice are already far advanced and incurable. Too long in Georgia doctors have treated diseases of their choices and let go by the all-important ones.

We are awaking to the fact that nutrition is the most important question that could be discussed at medical meetings. We failed miserably in controlling and treating the venereal diseases. All these diseases and disorders may be found by Georgia doctors anywhere in the State and eradicated or controlled at reasonable cost, provided trained helpers and wise use of modern instruments are used.

Merchants who carry inadequate stocks expect their customers to visit competitors and use mail order houses. Perhaps the time will soon arrive when Georgia doctors will stop their isolation habits and gather around treatment centers which have adequate equipment. In this way family physicians will be loved and respected more than ever in our history. Otherwise we invite further invasion by state medicine which is doing a splendid job in Public Health. We must really begin working together for the good of all our people if we progress.

JAMES A. REDFEARN, M.D.



THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

FEBRUARY, 1943

MEDICINE OF YESTERDAY AND TODAY

It is difficult to know just where to begin the comparison of the medicine of pioneer days with that of today. The practice of medicine and medical education in the American colonies were primitive in the extreme. The latter was perpetuated by the preceptorial or apprentice system. Occasionally, a wealthy, ambitious young man went abroad to "walk the hospital wards."

About the middle of the eighteenth century some of these men began to organize individual classes, usually to teach anatomy. In 1762 William Shippen organized a class for instruction in midwifery. In a short time the work was broadened. It was from this humble beginning that the medical schools of America have evolved. At the close of the Revolution there were only two medical colleges in English-speaking America. However, twenty-five years later there were perhaps 15 "allopathic" medical colleges functioning in the eastern states.

The courses of instruction were short and rudimentary. There was some effort to raise the standard of medical education, but it was futile until the organization of the American Medical Association in 1846. There were no laws regulating the practice of medicine, so it was an easy matter for the unscrupulous charlatan to prey upon the public.

The United States census of 1790 gave Georgia a population of 82,548. Speaking of this period, Dr. L. B. Grandy of Atlanta said at the 46th annual session of the Medical Association of Georgia (Transactions, 1895, p. 193): "At the close of the Revolution there were not 200 physicians in the new State; very few of these had ever heard a medical lecture or seen a cadaver." They knew nothing to do except bleed, purge, and blister. In some cases they induced

salivation and emesis until the life of the patient was almost extinct before outraged nature asserted itself. Dr. Benjamin Rush said of these times: "We have assisted in multiplying diseases. We have done more, we have increased their mortality."

There was no knowledge of hygiene or sanitation. Therefore, communicable diseases, especially in the late summer and early fall, were almost universally present and took a frightful toll of life. Many communities were almost depopulated. Typhoid fever, smallpox, malaria, and in the coastal counties yellow fever claimed many victims.

Early in the nineteenth century a system of medicine known as "the Thomsonian or Botanical school" made its appearance in Georgia. The headquarters seemed to have been in or near Griffin. A book, carrying with it the right to practice the system, was sold. As it strongly denounced the "allopaths" or regular medical profession it had many adherents among the ignorant rural people. This system was strongly condemned by Dr. Milton Antony of Augusta, founder of the school of medicine in the State University, who was one of the best and most patriotic doctors of that period.

In 1825, the physicians of Augusta secured the passage of the first Medical Practice Act. This was a great boon to the people, for it protected them from the ignorant and unscrupulous practitioners who infested the State like locusts in a wheat field. This Act was amended several times before our present efficient law was evolved.

During the nineteenth century 437 medical colleges were organized in the United States and Canada. Early in the twentieth century there were 162 still in operation. It was at this time, especially in the South, that the quacks and charlatans reaped a bountiful harvest on rich and poor alike from their attractively written "ads." They claimed to be able to cure all human ills and condemned the regular physicians in no uncertain terms.

At that time one wishing to practice medicine in Georgia had only to present his diploma to the clerk of the court and sign an affidavit stating that he was a graduate

in medicine: it mattered not from what school — regular, homeopathic or eclectic. He was ready to go to work as soon as the clerk collected the fee of fifty cents. Under these circumstances it is no wonder that medical colleges and diploma mills sprang up all over the country.

Between 1890 and 1912 there were seven chartered medical colleges in Georgia. Two of them lived only a year or so; in 1909, therefore, only five colleges were functioning in the State. The aggregate attendance was 724 students. At that time the total number of medical students in the United States was 23,927.

In 1909, the Carnegie Foundation sent Abraham Flexner on a tour of medical college inspection. Flexner's report was published in 1910 as *Carnegie Foundation Bulletin No. 4*. It had a revolutionary effect on medical education. Colleges and schools dropped out of existence as if by magic. Better medical practice laws were enacted and standardization became the order of the day. The number of schools was reduced from 161 to 84 in less than five years. Better doctors were produced and the span of life began to lengthen.

Instead of the years spent as an apprentice to some practitioner, a student now spends three years in literary college and then four years in a medical school, where three times as much money is spent on his education as he pays in tuition. After graduation he spends from one to four years more in a hospital. He now has at his command laboratory facilities that were undreamed of fifty years ago. As a result, the newly-born doctor is interested in public health work and preventive medicine and in making a diagnosis before beginning treatment, so that (in the words of William J. Mayo) "there is now treatment with knowledge instead of, as of old, treatment without knowledge." In the past fifty years more advance has been made in medical science than in any other of the learned professions. On leaving the hospital a young practitioner has a good general knowledge of the value of all laboratory procedures for physical diagnosis. He is capable of handling a complicated medical, surgical or gynecological patient.

He knows what to do for an expectant mother, what complications may arise in any of these and how to prevent them.

Educated and trained as the doctor of today is, he is loath to go to the rural districts and small towns. He has invested in medicine from eight to ten years of his life, to say nothing of the money. The greatest drawback to our present system of medical education is that it fosters too strongly a tendency to specialization and to congregating in the larger cities.

Time will not permit further discussion of medical teaching and practice. There is, however, one feature of the present-day practice of medicine that must be regretted — the passing of the family physician. He was a friend and counselor, a father confessor for old and young, an ideal for the younger members of the family to emulate and for the older ones to love and respect. He was a symbol of the *art* of medicine and his passing has laid open the way for designating the *science* of medicine as a "trade."

J. L. CAMPBELL, M.D.

PASTEURIZATION OF ALL DAIRY PRODUCTS ESSENTIAL IN CONTROL OF BRUCELLOSIS

Careful pasteurization of all dairy products is an essential safeguard against milk borne brucellosis (Malta or undulant fever), it is pointed out in *The Journal of the American Medical Association* for January 30 in a report on a milk borne epidemic of the disease in Marcus, Iowa. The report is presented by I. H. Borts, M.D., Iowa City; D. M. Harris, M.D., Le Mars, M. F. Jcynt, M.D., Marcus; J. R. Jennings, B.A., and Carl F. Jordan, M.D., Des Moines.

From their findings the investigators also advise that hogs should not be permitted to run on the same lot with dairy cows and that prevention of the occurrence of brucellosis in human beings requires a continuing program and effective measure for the eradication of the disease among farm animals. The epidemic at Marcus, involving 77 persons, was caused by a strain of the organism causing brucellosis which was traced to a raw milk supply. It was found that hogs had been allowed to mingle freely in the same pasture with the dairy cows.

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

ENCEPHALOMYELITIS FOLLOWING SMALLPOX VACCINATION

(Continued from page 48)

mission. On June 26, 1942, he was vaccinated for smallpox. Two days later he complained to the school nurse of headache and a sensation of fullness in his head. He was put to bed and it was noted by his classmates that he had some shortness of breath and that he "slept all the time." On the following day the headache had subsided some and the patient resumed his school work.

There was nothing outstanding in his past history. He had had the usual childhood diseases and occasionally had mild attacks of asthma. He had received no vaccinations or immunizations prior to the one mentioned. Family history was essentially negative. His father, mother, two sisters and one brother were living and well.

A physical examination at time of admission revealed the patient to be a well nourished and well developed white male of stated age. He lay quietly in bed and was quite lethargic. He could only be aroused for short periods of time. During these brief intervals he was slightly delirious and went promptly to sleep after answering a question. Said that his head ached and that he felt nauseated. Temperature 98 degrees; blood pressure 175/80; pulse 100; respiration 20. Pupils were dilated and fixed to light and there was no pupillary response to accommodation. There was no evidence of impairment of extraocular muscles. Both optic discs were well outlined. There was no edema. However, the retinal veins were enlarged and showed questionable signs of engorgement. Tongue was quite edematous and bore tooth marks as if it had been bitten. Ear drums were clear. Tonsils were plainly visible, but showed no signs of inflammation. Thorax was symmetrical and the excursions of two sides were equal. Lungs were clear to palpation, percussion and auscultation. The heart was within normal limits. Tones were of good quality and no murmurs were heard. A_2 equaled P_2 . Abdomen was on plane and there was no tenderness or rigidity. Liver and spleen were not palpable; no masses were felt; peristalsis was hyperactive. Reflexes were hyporeflexive. Physical was otherwise negative.

A routine blood examination showed the leukocyte count to be 11,200 with 76 per cent polys. Erythrocyte count was 4,200,000; hemoglobin, 13.8 grams. Blood Wassermann was negative. Urinalysis was negative. A lumbar puncture showed the spinal fluid to be under increased pressure. Queckenstedt was negative. A cell count showed 11 cells. Spinal fluid Wassermann was negative. Colloidal gold curve was negative. A total protein quantitative estimation showed 74 milligrams.

During the first three days in the hospital he had several convulsions which varied in length and intensity but all-in-all grew progressively longer and more intense. After the third day he lapsed into a comatose state with convulsions coming as often as every hour and each lasting from five to thirty minutes. At this time his eye grounds showed definite signs of engorgement. Blood pressure had increased steadily to 220/110. Temperature rose to 101 degrees by axilla, and his pulse rate to 140. At times there were signs of a meningitic phenomenon when the patient would demonstrate opisthotonos with

a positive Kernig and Brudzinsky. This would last for varying periods and then there would be an increase of knee-jerks with absent abdominal and cremasteric reflexes but there never was a positive Babinski. At times he would exhibit involuntary thrashing movements of the arms and legs. Intermittently and lasting only for short periods, there was a lateral nystagmus. Throughout the entire illness his pupils remained dilated and fixed to light.

A diagnosis of encephalomyelitis following vaccination against smallpox was made. Treatment consisted of repeated lumbar puncture with 30-70 cc. of fluid being withdrawn each time. Convulsions were controlled with sodium luminal given intravenously. Doses up to 6 grains were given. Hypertonic glucose and 10 per cent magnesium sulfate were also given repeatedly as was citrated whole blood from immune donors, which was given intramuscularly in 10 cc. doses. Immune serum was obtained from the patient's classmates who had been vaccinated about one month previously; this was given intramuscularly in 10 cc. doses. Oxygen was given continuously by nasal catheter; 3,000 cc. of 10 per cent glucose with physiologic saline were given daily. Vitamin complexes were given parenterally. Four cc. of neoprontosil were given intramuscularly every four hours. Nothing specific was hoped to be attained by this latter therapy, but a feeling of inadequacy unquestionably suggested it.

This stormy course of convulsions, delirium and varying neurologic signs continued until the sixth hospital day. After this time the patient became quite restless and complained bitterly of headache. Later in the day the patient began to take small amounts of milk and lemonade. Fluids were steadily increased by mouth and on the ninth hospital day the patient was given a soft diet. Recovery from then on was uneventful. Patient was dismissed on the twenty-first day. A physical examination one week after dismissal revealed some sluggishness of pupillary response to light and accommodation and the eye grounds still showed some signs of increased tension. Two weeks later a physical examination was essentially negative. Similar checkups one and two months later respectively revealed no sequelae.

Conclusions

1. Vaccination of infants against smallpox before the age of one year would decrease the incidence of the disease here described.
2. The disease usually follows the first vaccination.
3. There is a familial tendency.
4. When recovery occurs it is usually complete.
5. Immune sera seem to produce definite improvement and the symptomatic treatment as outlined was *sine qua non* in controlling the convulsive seizures and improving the general condition of our patient.

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GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

PREMATURE INFANT CARE IN 30 GEORGIA HOSPITALS

Premature infant deaths amount to one-third of all infant deaths and, therefore, constitute the greatest single cause of infant mortality. Other causes of infant mortality have been reduced, but premature infant deaths have been little affected. The attitude that prematures are abnormal and will not survive is without scientific basis.

Because insufficient interest has been manifested in the care of premature infants, the Maternal and Child Health Division of the Georgia Department of Public Health, in cooperation with the Georgia Pediatric Society, through the medium of questionnaires provided by the Children's Bureau of the U. S. Department of Labor, endeavored to evaluate standards of care for premature infants in general hospitals in Georgia. Thirty of the 100 questionnaires distributed were

provide acceptable training and experience for other hospital staffs. Financial assistance to hospitals for staff training and experience in hospitals maintaining acceptable standards could be made available from public health sources, provided the hospitals thus aided established satisfactory premature infant care programs.

Good premature infant care is essentially good newborn care. The quality of premature infant care frequently reflects the quality of newborn care and vice versa. The home phase of premature infant care, which is concerned with proper transportation, early admissions, lay education, and follow-up upon discharge from the hospital should be largely provided by public health departments.

Twenty-seven of the 30 hospitals returning questionnaires reported provision for premature infant care; while 2 did not provide care. One had no provision for premature infant care, yet 27 prematures were cared for during one year.

Type of Hospitals Reporting were:

County	3 Hospitals	Proprietary	16 Hospitals
Other Non-Profit	10 Hospitals	Not Stated	1 Hospital

Provision According to Race

White	11 Hospitals	White and Negro	13 Hospitals
Negro	1 Hospital	Color Not Stated	5 Hospitals

Basis for Considering an Infant Premature

1. Under Full Term		3. Development of infant & month of pregnancy	3 Hospitals
Month not stated	3 Hospitals		
Under 8 months	1 Hospital	4. Viable before term	1 Hospital
7 months and under	2 Hospitals	5. Doctor's opinion	1 Hospital
2. Weight		6. Appearance & history	2 Hospitals
5 Pounds or less	6 Hospitals	7. Not Stated	5 Hospitals
5½ Pounds or less	4 Hospitals		
6 Pounds or less	2 Hospitals		

returned, and this analysis is based on the information derived therefrom.

Acceptable premature care can only be provided in hospitals. Adoption of proper standards by local medical groups would be the best stimulus to hospitals to provide necessary facilities and personnel. Suggested standards for premature care may be obtained from the Georgia Department of Public Health upon request. Satisfactory home care for premature infants is impractical, though home care is often safer than hospital care because few hospitals afford acceptable service. Adequately trained hospital staffs are a prerequisite for good premature care and at least one Georgia hospital should

Five hospitals had no basis for determining prematurity, however, three cared for prematures, while two did not.

Equipment, Facilities and Personnel

Equipment for acceptable premature care need not be elaborate, since much of it can be improvised. Excellent facilities, without trained personnel, are of little value. Every item evaluated in this analysis is necessary for good premature care. Twenty hospitals had a heated bed in delivery room, while 10 did not. The types of heated beds included:

Twenty-nine hospitals reported a rubber suction bulb, or other device for clearing the upper respiratory tract of mucus, available in delivery

Incubator	4 Hospitals	Regular (?)	1 Hospital
Heated Bassinette	7 Hospitals	Electric Coil	1 Hospital
Electric Pad	1 Hospital	Not Stated	5 Hospitals
Steam Heat	1 Hospital		

room. Twenty-six hospitals provided an oxygen tank in delivery room. Two hospitals reported oxygen tanks available elsewhere in building. Facilities for resuscitation kept in delivery room units in 15 hospitals included: (Table A).

was trained in care of premature infants. (This question was evidently misinterpreted, because 4 of these 14 hospitals cared for no prematures and 2 others did not give number cared for.) There was one nurse for each 4 premature infants on

TABLE A

Heidbrink Resuscitators	3 Hospitals	5% CO ₂ - O ₂	1 Hospital
Respiratory stimulants, drugs	4 Hospitals		
Laryngoscope & Tracheal Catheter	1 Hospital	E and J	1 Hospital
Basins with hot & cold water	1 Hospital	Not Stated	4 Hospitals

TABLE B

Whenever necessary	2 Hospitals	Twice Daily	2 Hospitals
Daily	2 Hospitals	Not Stated	24 Hospitals

TABLE C

6 Hospitals cared for 0 prematures	5 Hospitals cared for between 4 and 10 prematures
2 Hospitals cared for 1 premature	1 Hospital cared for 46 prematures
3 Hospitals cared for 2 prematures	3 Hospitals did not state number cared for
2 Hospitals cared for 3 prematures	

The service on which premature infants were cared for:

Obstetric, in 22 hospitals	General, 1 hospital
Pediatric, in 2 hospitals	Other, 1 hospital
Obstetric & Pediatric, in 3 hospitals	Not stated, 1 hospital

Sixteen hospitals provided heated beds for transporting premature infants from delivery room to nursery. (Some hospitals considered this unnecessary.)

An attending pediatrician visited at regular intervals in 10 hospitals; 6 hospitals stated intervals were as follows: (Table B).

Two hospitals had nurses (both day and night) who were assigned exclusively to the care of premature infants. (One of these hospitals cared for only 1 premature and the other cared for none during 1941). Twenty-five hospitals assigned any available nurse to care for prematures. Fifteen hospitals reported assignment of at least one graduate nurse with training and experience in care of prematures to the unit for premature infants. Fourteen hospitals made no such provisions and 1 hospital made no statement.

Nine hospitals assigned student nurses to care for premature infants. Only 2 of these 9 hospitals have accredited training schools. Ten hospitals use nursing aides to assist in the care of premature infants, despite the fact that such care requires a highly specialized nursing service. Four of these 10 hospitals had not cared for any prematures during the past year.

Thirteen hospitals reported a supervisor (day and night) of the nurses assigned to care for premature infants. One hospital has a day supervisor only. Nine hospitals said their supervisor

duty day and night in 22 hospitals. A summary of prematures cared for during one year in these hospitals reveals: (Table C).

Seven hospitals had a separate room for the care of prematures only, while two reported one cubicle each.

Twenty-seven hospitals provided some type incubator. Three hospitals without incubators had not taken care of prematures during the preceding year. Of the 27 hospitals with incubators, 3 hospitals had 3 incubators each, 3 had 2 incubators each and the remaining hospitals had one each. Descriptions of incubators were in such general terms that only the following types could be definitely determined:

Twenty-seven hospitals had oxygen tanks available for use in premature infant unit. Of the hospitals without oxygen tanks available, 2 had not cared for premature infants during the year and the other had cared for only two.

Twenty-six hospitals provided a suction bulb, or some other device for clearing the upper respiratory tract, available for use in the premature care unit.

Two hospitals reported air-conditioned rooms for premature care, but one of these hospitals stated "Premature infants not cared for" and the other reported "No prematures cared for during past year." Reports from 23 hospitals showed an allowance of at least 200 to 400 cubic feet of air space per infant; while on 4 reports the

air space was not given and 3 reports showed less than 200 cubic feet of air space. Beds were at least 2 feet apart in 22 hospitals. In 24 hospitals, beds were at least 6 inches from any wall or partition.

Georgia Dept. of Public Health.....	10
Hess Beds	4
Castle	3

Eleven hospitals kept clothing, linen and utensils at each premature infant's bedside. Twenty-six hospitals had a container available for soiled linen and diapers; while 1 hospital removed soiled linen and diapers immediately from the room.

Twenty-two hospitals provided individual clinical thermometers for each premature infant. Eleven hospitals had a scale for weighing infants only. Seven hospitals used balance scales for weighing prematures, 2 used spring scales and 2 others did not state type used.

Seventeen hospitals had running water in the premature infant unit. 16 had both hot and cold water, and one did not give this information. Faucets were controlled by hand in 14 hospitals, by hand and knee in 1 hospital, by knee in 1 hospital, and by foot in 1 hospital.

1st day	11 Hospitals
2nd day	3 Hospitals
3rd to 4th day	4 Hospitals
6th day	1 Hospital

The intervals for weighing babies varied from daily to every 7 days, as follows:

Daily	19 Hospitals
2 days	2 Hospitals
3 days	2 Hospitals

Physicians wore gowns routinely in premature unit in 11 hospitals, while nurses wore gowns routinely in 12 hospitals. Masks were worn routinely by physicians in 13 hospitals and by nurses in 15 hospitals. Doctors washed their hands before and after handling each infant in 24 hospitals; nurses, in 27 hospitals.

Twenty-three hospitals had a wall thermometer in each room where premature infants were kept, 5 had a device for recording humidity, and 4 had a thermostat.

Fifteen hospitals reported a separate room reserved for observation of premature infants in whom illness is suspected. This question was probably misinterpreted (with the exception of one hospital which cared for 46 prematures last year), because 5 of these 15 hospitals had not cared for prematures the past year, 2 were unable to give the exact number, and 3 cared for between 1 and 10 prematures during the year.

Eight hospitals had running water in the observation room and 6 had both hot and cold water. Faucets were controlled by hand in 6 rooms and by knee in 2.

Twenty-two hospitals isolated sick premature infants in a part of the hospital distant from the nursery for newborn infants, and 21 hospitals removed them from the unit for well premature infants.

Sharp-Smith	1
Type copied from one in a Savannah hospital	1

Twenty-four hospitals gave oil baths first to premature infants, 2 gave a combination of oil and water and 1 gave a water bath. Fourteen hospitals gave the baths in bed. The age at which baths were first given varied as follows:

Infants were fed in bed in 24 hospitals. Gavage feeding was used in 13 hospitals, but indications for the procedure were not specified. No organized system for supplying breast milk to prematures was reported by any hospital in the survey. Seven hospitals used vitamins routinely for ward cases. The age at initial dose was specified by 4 hospitals and varied as follows:

<i>Kind</i>	<i>Age at Initial Dose</i>
Vitamin A	3 days to 14 days
Vitamin C	3 days to 4 weeks
Vitamin D	3 days to 14 days

10th day	2 Hospitals
Variable	1 Hospital
Condition of patient	1 Hospital
When indicated	1 Hospital

5 days	1 Hospital
7 days	3 Hospitals
Not stated	3 Hospitals

Twenty-five hospitals kept a medical record of the premature separate from the mother's record. One report stated "yes and no" to this question and explained that the premature record was not adequate. Three hospitals without separate medical records for prematures had not cared for prematures during the past year. One hospital reporting "no" to this question had cared for 8 prematures in a year.

Twenty-four hospitals rigidly enforced rules excluding visitors from the unit for premature infants. Six hospitals had no such rules, but cared for 15 premature infants during one year.

Twenty-one hospitals cared for premature infants born elsewhere; 9 hospitals cared for such infants in a nursery separate from the unit for prematures born in the hospital.

Twenty-seven hospitals routinely gave instruction in the care of premature infants to mothers before discharging them from the hospital (ward cases only).

Home investigations were made routinely (ward cases only) by 11 hospitals. Home inves-

(Continued on page 57)

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1942-3

President—Frieda Grefe, R.N., Savannah
 First Vice-President—Sister Cornile, Atlanta
 Second Vice-President—Mrs. Mae M. Jones, Mil-
 ledgeville.
 Secretary—Mrs. Esther Watts, Columbus
 Treasurer—Jane Van De Vrede, Atlanta.

President—Georgia League of Nursing Education,
 Ruth Babin, Atlanta
 President, Georgia State Organization of Public Health
 Nursing—Vera Mingledorff, Griffin
 Chairman, Private Duty Section, G.S.N.A.—Mrs. Mil-
 dred Pryse, Albany

Executive Secretary—Durice Dickerson, R.N., Headquarters, 131 Forrest Ave., N. E., Atlanta; Tel. WA. 8911
 Chairman, State Committee on American Red Cross Nursing Service—Jane Van De Vrede, Atlanta

THE '43 LINE-UP

- 36,000 additional nurses for service with the armed forces.
- 17,600 students for admission to spring classes of nursing schools.
- 65,000 students for admission to nursing schools in the school year September '43 - July '44.

There's more to the assignments for '43 than meets the eye. Thirty-six thousand nurses needed for military service are the equivalent of one-sixth of all nurses actively nursing now. None can easily be spared from where she is serving, yet spared 36,000 must be! And to divert 82,600 young people in the next 17 months to nursing schools from such well-advertised attractions as the WAVES, the WAACS, and the SPARS, also well-paying jobs in war industries, is no mean task!

Sweat and tears—plenty of both—are in store for those responsible for meeting the assignments. Substantial adjustments in all phases of civilian nursing service and nursing education must be made. Every nurse must take time out for hard, objective, self-evaluation to decide whether she is now making her most telling contribution toward winning the war, or whether she could be of greater service elsewhere.

1943 will be a year of action. Important developments in 1942 have paved the way for the job ahead. Here is the line-up for '43, the foundation on which nursing will move forward in meeting its assignments for the year

Recruitment for the Military—A.R.C.N.S.

The American Red Cross Nursing Service has been made the official recruiting agency for the Army Nurse Corps. A total of 3,700 recruiting stations are being set up in chapters in cities of 25,000 or more population. The ARCNS is responsible for evaluating the credentials of every nurse applying for appointment to the Army Nurse Corps. Assignment will then be made by the Army Nurse Corps. The relationship of the ARC with the Navy Nurse Corps remains unchanged.

Pay Increases

Public Law 828, 77th Congress, signed by President Roosevelt Dec. 22, 1942, provides that nurses in the Army and Navy Nurse Corps shall

receive for the duration and six months thereafter, pay, insurance privileges and money allowances for subsistence, rental of quarters and travel, equal to that of commissioned officers of comparable grade, viz. 2nd Lieutenant and Ensigns will receive base pay of \$150 per month plus allowances.

Adjustments on the Home Front — Who and Where

PRIORITIES FOR NURSES, a guide to nurses and nursing agencies in meeting the war emergency is available from the National Nursing Council for War Service, 1790 Broadway, New York, N. Y. Its supplement **PRIORITIES FOR GENERAL STAFF, INSTITUTIONAL, OFFICE, PRIVATE DUTY AND PUBLIC HEALTH NURSES**, prepared by the American Nurses' Association, National League of Nursing Education and the National Organization for Public Health Nursing, provides helpful criteria for deciding where to serve, i.e., with the armed forces or on the home front.

Priorities for public health nurses under the title "Maintaining Minimum Public Health Nursing Standards in Wartime" appears in the December, 1942, issue of *Public Health Nursing*.

Nurses Supply Board

A recommendation to create a Nurses Supply Board formulated by the National Nursing Council for War Service and approved by the Subcommittee on Nursing, has been sent to the Health and Medical Committee for presentation to the War Manpower Commission. Action by the Commission (approval or rejection) is expected shortly. Such a board, if created, would take over supply and distribution of all nurses for the duration.

DURICE DICKERSON, R.N.

NEWS ITEMS

Hospital Needs

A Joint Committee of the National Nursing Council for War Service and of the American Hospital Association on Hospital and Nursing Problems has been created to consider ways of meeting the urgent need for nursing services in hospitals.

Hospital Adjustments

Significant articles describing ways in which some civilian hospitals are maintaining their basic professional and

auxiliary nursing services are presented in the December '42 and January '43 *American Journal of Nursing*. They may be found on pages 1404 and 52, respectively, under the title "The Hospital and the Community."

U. S. Office of Education

Whole-hearted support for the student nurse recruitment program is given by the U. S. Office of Education. It has sent its newly published pamphlet *Professional Nurses Are Needed* to counselors of every school in the country, and in addition has ready for distribution to counselors and libraries, loan packets on nursing as a career.

Scholarship Funds

Scholarships for student nurses, in generous amounts, are available from federal and private sources, so that no *deserving student need be barred from admission to a school of nursing because of lack of funds*. A list of organizations through which scholarship and loan funds are provided is available from the National Nursing Council for War Service, 1790 Broadway, New York, N. Y.

Public Information

Because nursing is so important in war and in peace, the Office of War Information has given wide publicity to the need for nurses through its radio and magazine departments. Double A radio rating is periodically granted nursing on national networks; and editors of newspapers and magazines are encouraged by the OWI to play up the need for student nurses.

S.O.S. TO ALL NURSES

Every nurse is urged to fill out immediately and return on the next post, the national inventory card sent to her by her state nursing council for war service. Speedy action is important. War makes it imperative that the strength and concentration of our nurse power be known.

The second national inventory of nurses was launched January 1st. If you have not yet received your questionnaire post-card, ask the secretary of your state nursing council about it. Nurses in Georgia can write to Miss Durice Dickerson, 131 Forrest Avenue, N. E., Atlanta, Georgia, or to the Chairman of the nearest district nursing council for war service. Refer to the January, 1943, issue, page 25, of the *JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA*, for a list of the members of the State Nursing Council for War Service and the District Chairmen.

PREMATURE INFANT CARE IN 30 GEORGIA HOSPITALS

(Continued from page 55)

tigations were made by public health nurses (when requested) for 7 hospitals, by physicians for 3 hospitals and by mill nurse for one. Ten hospitals notified the public health nursing agency routinely of discharge of prematures (ward cases only). However, since only 5 of these 10 hospitals cared for prematures during the past year, this practice is no doubt one the hospitals intend to carry out. Thirteen hospitals routinely referred mothers to follow-up clinic (ward cases only).

Of the hospitals submitting reports, 17 listed a total of 136 white premature births, 6 gave a

total of 12 premature negro births, and 10 cared for 29 prematures born elsewhere. Premature births usually average from 5 to 12 per cent of total births. On this basis, between 3,250 and 7,300 premature infant births occur annually in Georgia.

Basis for Discharge of Premature Infants From Hospitals (Ward Cases Only)

Weight and general condition	8 Hospitals
According to physician's orders	6 Hospitals
Weight: 5 Pounds	2 Hospitals
6 Pounds	2 Hospitals
7 Pounds	2 Hospitals
Regular gain	2 Hospitals
(1 stated it was not necessary to weigh 5 lbs.)	
Ability to be cared for at home	3 Hospitals
Not stated	5 Hospitals

Note: Conditions in home were mentioned on reports from 3 hospitals, but were part of one of the above items.

The questionnaire provided a basis for determining quantity, rather than quality, of service; as the latter would require a personal appraisal of each hospital. The analysis indicates that quantity of service is inadequate, and acceptable service is impossible without improvement of facilities and training of personnel. Provisions for good premature care are the responsibility of the medical profession, inasmuch as the profession determines community hospital facilities. To meet this responsibility, physicians should evaluate premature infant care in their respective communities and work toward the attainment of the best possible standards. Few, if any, communities in Georgia can rightfully claim that they are providing adequate care for premature infants.

EDWIN R. WATSON, M.D., *Director*

Division of Maternal and Child Health
Georgia Department of Public Health.

NEWS ITEMS

Dr. S. F. Rosen, Savannah, has returned to his home from the Northwestern University Medical School, Chicago. He took a special course in dermatology sponsored by the United States Public Health Service under the supervision of Dr. Louis Schwartz. Part of the work consist of classroom study, later the study was conducted in various kinds of industrial plants.

The Medical and Surgical Staff of the Georgia Baptist Hospital, Atlanta, held its annual banquet in the Nurses' Dining Room on January 19. Dr. James W. Merritt, Secretary-Treasurer of the Hospital Commission, spoke on "Recognition of Service"; Dr. B. L. Shackleford made the "Report for Secretary for 1942"; Dr. Hal M. Davison, retiring President, "Commented on Work of the Staff and Other Personnel"; Dr. James W. Merritt announced staff appointments for 1943-44. Dr. H. W. Minor was elected president; Dr. H. H. Askew, secretary.

The Bibb County Medical Society met at Ridley Hall, Macon, January 19. Dr. W. W. Baxley and Dr. R. W. McAllister presented "Clinical Cases."

Dr. Eustace A. Allen, secretary-treasurer of the Fulton County Medical Society, announces that the Society has changed its meeting night to the first and third Thursdays of each month.

The staff of the Department of Medicine of Grady Hospital, Atlanta, met on January 31. Cases discussed were: "Infectious Mononucleosis"; "Tetany"; "Spinal Arachnoiditis"; and "Congenital CNS Lesions."

Dr. Thomas Parran, surgeon general of the United States Public Health Service, spoke at the Biltmore Hotel, Atlanta, February 3. Public health officials and social hygiene educators attended the meeting from Alabama, Mississippi, North Carolina, South Carolina, and Florida.

The Ware County Medical Society met at Blackshear on February 3. The doctors of Blackshear were hosts at dinner. Physicians from Camp Stewart were guest speakers.

The Bibb County Medical Society met at Ridley Hall, Macon, February 2. Mr. Carey O. Pickard, Director of Personnel, Safety and Protection, U. S. Naval Ordnance Plant, Macon, spoke on "Personnel and Associated Medical Problems in an Ordnance Plant."

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, February 4. Speakers on the program were: Dr. Herbert S. Alden, Dr. Olin S. Cofer, Dr. W. W. Daniel and Dr. B. L. Shackelford.

The Georgia Medical Society, Savannah, held its annual meeting on February 9. Officers were installed.

The Visiting Staff of Grady Hospital, Atlanta, met on February 9. "Medical Case Problems" were presented by the staff. Dr. Jeff L. Richardson is president and Dr. Eleanor Townsend, chairman of the Program Committee.

The staff meeting of the Crawford W. Long Memorial Hospital, Atlanta, met on February 11. Dr. J. C. Ivey reported a case, "Amoebic Abscess of the Liver." Dr. J. Calvin Weaver is president of the staff.

Dr. John F. Busch, formerly with the State Department of Public Health, Atlanta, has been appointed Director of Medical and Health Service for the Eastern Area of the American Red Cross with headquarters in Alexandria, Virginia. Georgia is included in this area.

The Medical and Surgical Staff of the Georgia Baptist Hospital, Atlanta, met on February 16. Dr. W. E. Upchurch was in charge of the program. Dr. Hulett H. Askew is secretary of the Georgia Baptist Hospital Staff.

The Staff of Emory University Hospital, Emory University, met on February 2. Dr. E. Van Buren spoke on "Staphylococcal Septicemia," discussion was led by Dr. E. Gambrell and Dr. C. W. Strickler, Sr. Dr. Taylor Burgess reported a case, "Spontaneous Cerebrospinal Rhinorrhea."

The Bibb County Medical Society accepted the invi-

tation of Col. Cameron to visit and inspect Robins Field, Warner Robins, Georgia.

Dr. G. Lombard Kelly, Dean of the University of Georgia School of Medicine, Augusta, announces that 21 lectures in military medicine have been arranged for the senior class, most of whom will go into military service upon graduation.

Dr. Richard Torpin, Augusta, spoke before the January meeting of the Woman's Auxiliary to the Richmond County Medical Society on "A Woman's Place in Medicine."

Dr. Raiden Dellinger, son of Dr. and Mrs. A. H. Dellinger, No. 2 Sherwood Road, Rome, Georgia, was promoted to the rank of Major in the United States Army the last of January, 1943, at the age of 23. His wife is the former Ruth Steigel of Jacksonville, Florida. He is now stationed at Camp Phillips, Kansas. A graduate of Darlington School for Boys, young Dellinger received his B.S. and M.D. degrees at Emory University. He was promoted from First Lieutenant to Captain May and the Phi Chi Medical Fraternity. He served a two year internship at the New York Polyclinic and then spent a year in the Army at Fort Ethan Allen, Vermont, during which time he was graduated at the Medical Field Service School at Carlisle, Pennsylvania. On leaving the Army Dr. Dellinger became resident physician at Riverside Hospital, Jacksonville, Florida. He holds both Georgia and Florida State licenses, in basic science from the State of Florida. Called back to active duty last March 12, he was promoted from First Lieutenant to Captain May 23rd. He was graduated from the Advance Training School at Carlisle in August, paving the way for his rapid promotion to Major.

COUNTIES REPORTING FOR 1943

Richmond County Medical Society

The Richmond County Medical Society announces the following officers for 1943:

President—Geo. W. Wright, Augusta.
Secretary-Treasurer—H. P. Harrell, Augusta.
Delegate—R. C. McGahee, Augusta.
De'legate—D. R. Thomas, Augusta.
Alternate Delegate—M. P. Agee, Augusta.
Alternate Delegate—R. H. Chaney, Augusta.

Dougherty County Medical Society

The Dougherty County Medical Society announces the following officers for 1943:

President—W. S. Cook, Albany.
Vice-President—J. C. Keaton, Albany.
Secretary-Treasurer—L. M. Lucas, Albany.
Delegate—J. M. Barnett, Albany.
Alternate Delegate—Alex Freeman, Albany.

Forsyth County Medical Society

The Forsyth County Medical Society announces the following officers for 1943:

President—R. H. Bramblett, Cumming.
Vice-President—J. Theo. Brice, Cumming.

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WOMAN'S AUXILIARY**: OFFICERS 1942-43**

President—Mrs. J. Lon King, 223 Buford Place, Macon.

President-Elect—Mrs. Wm. Bruce Schaefer, Toccoa.

First Vice-President—Mrs. Harry M. Kandel, 432 Abercorn Street, Savannah.

Second Vice-President — Mrs. Walter G. Elliott, Cuthbert.

Third Vice-President — Mrs. Ralph W. Fowler, Marietta.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta

Recording Secretary—Mrs. J. C. Metts, 303 Anderson Avenue, Savannah.

Parliamentarian—Mrs. S. T. R. Revell, Louisville.

Treasurer—Mrs. Lucius N. Todd, Rural Delivery No. 2, Augusta.

Historian—Mrs. Jack R. McMichael, Quitman.

Corresponding Secretary—Mrs. Wallace L. Bazemore, 127 Beverly Place, Macon.

Mrs. Allen's Message

Mrs. Dawson Allen, of Milledgeville, chairman of the public relations committee of the Woman's Auxiliary to the Medical Association of Georgia, has written the following interesting message to members:

"Keeping physically, mentally and morally fit and patriotically alert is the all important job today. We people of the United Nations have a job on our hands, we must win the war. All that makes life worth living is at stake. We cannot serve with the armed forces, but we can do our bit. We can promote in all seriousness health defense in war time, enlisting the services of each member in the program of medical defense.

"Preventable illness and unreasonable demands on the time of the physician must be reduced to a minimum because of the urgent need for physicians in the armed forces. Population gains, overcrowding, inadequate housing, lack of sanitation and shortage of physicians have adversely affected health conditions. You are urged not to take on too large a program. Your knowledge of local conditions and the direction of your own advisory committee might suggest many avenues which, while adaptable in one locality, might be useless in another. Your community is of first importance. Know the needs of your community.

"Our objectives for the year are as follows: promote the health education program outlined by the Medical Association of Georgia to lay organizations, speakers and approved education literature for which can be secured; make special use of health films and radio programs, and keep before our membership the necessity of being well informed and awake to the happenings in the field of health and health education."

Savannah Auxiliary

Miss Annie Taylor, director of the dental health department of the State Health Department, spoke on health films and Mrs. Samuel L. Varnedoe, assistant to the co-ordinator of civilian defense in Chatham county, talked on the various phases of Savannah's part in the defense program at the recent meeting of the Woman's Auxiliary to the Georgia Medical Society. The

meeting was held at the home of Mrs. John Paul Jones in Savannah with Mrs. A. A. Morrison, Jr., and Mrs. J. Reid Broderick co-hostesses. A committee was appointed to draw up resolutions on the death of two members, Mrs. John S. Howkins, Sr., and Mrs. Frederick Wahl, Mrs. Charles Usher being named chairman, with Mrs. Ruskin King and Mrs. Lee Howard assisting her. The Auxiliary voted to send its annual donation to the student loan fund at once. Mrs. Carson Demmond, chairman of Hygeia, announced that the Auxiliary has contributed copies to Carnegie Library, Cyler Street School, Hodgson Hall Branch Library, Savannah Vocational School class in home nursing, Savannah High School class in home economics, Savannah Soldiers Center, Georgia State Industrial College, Bookmobile, Barnard Street School, Hermitage School and Maple Street School. Mrs. L. W. Williams reported on the convention held recently by the Woman's Auxiliary to the Southern Medical Association in Richmond. Later the hostesses served refreshments, the table holding a center-piece of American Beauty roses.

Richmond County

The Woman's Auxiliary to the Richmond County Medical Society held two recent interesting meetings in Augusta. At one meeting, held with Mrs. Claude Tessier, members voted to buy Christmas seals and to give \$5 to the Christmas fund, \$2.50 to the *Augusta Herald* and \$2.50 to the *Augusta Chronicle*. Plans were made to have a public relations meeting at a later date. At the meeting held at the home of Mrs. J. W. Thurmond, Mrs. Ralph Chaney gave an informative talk on the outstanding features to be found in Hygeia, the national health magazine published by the American Medical Association. A report was given on the tea held at the state nurses' convention and plans were made for furnishing a recreation room at Camp Gordon.

Randolph-Terrell

The Women's Auxiliaries to the Randolph-Terrell Counties Medical Society met in the Simpson Hotel recently with 6 members present. Mrs. F. M. Martin, who had planned to present the program, was unable to attend the meeting so an informal session was held. Mrs. T. F. Harper, the president, discussed the aims of

the Auxiliary and plans for work to be undertaken during the next year. It was announced that members are doing much Red Cross work. A delightful social hour was enjoyed with Mrs. Harper and Mrs. F. S. Rogers hostesses.

Doctor's Day

The Woman's Auxiliary to the Medical Association of Georgia each year celebrates Doctor's Day on March 30. This year Mrs. Leonard R. Massengale, of Lumpkin, state chairman, has compiled a most interesting booklet to commemorate the occasion, and urges each member to secure one to present to her husband on March 30. The booklet, printed in red and blue on white paper, contains two acrostics, written by Mrs. Massengale, one "Doctor's Day" and the other "Doctor's For Defense." the history of Doctor's Day and a Tribute to Our Doctors. In it the chairman also makes the following suggestions for the observance of Doctor's Day: publish a tribute to doctors in newspaper; sponsor a radio program, if broadcasting station is available; send telegrams, notes or telephone the doctors; send flowers to offices, hospitals or clinics; send boutonniere to each doctor to wear and place flowers on graves of deceased doctors; visit the sick and retired doctors or remember them with flowers or notes; plan social function for medical society, barbecue, luncheon, dinner, dance or picnic; plant trees in honor of medical society; and devote March 30 to the doctors.

COUNTIES REPORTING FOR 1943

(Continued from page 58)

Secretary-Treasurer—W. E. Lipscomb, Cumming.
Delegate—Marcus Mashburn, Cumming.

Tattnall County Medical Society

The Tattnall County Medical Society announces the following officers for 1943:

President—J. C. Collins, Collins.
Vice-President—L. R. Jelks, Reidsville.
Secretary-Treasurer—J. M. Hughes, Glennville.
Delegate—L. V. Strickland, Cobbtown.

Floyd County Medical Society

The Floyd County Medical Society announces the following officers for 1943:

President—A. F. Routledge, Rome.
Vice-President—Robert Harbin, Jr., Rome.
Secretary-Treasurer—Inman Smith, Rome.
Delegate—B. V. Elmore, Rome.
Alternate Delegate—W. A. Sewell, Rome.

Wilkes County Medical Society

The Wilkes County Medical Society announces the following officers for 1943:

President—A. W. Simpson, Jr., Washington.
Vice-President—L. R. Casteel, Washington.
Secretary-Treasurer—R. G. Stephenson, Washington.
Delegate—Harry L. Cheves, Union Point.
Alternate Delegate—H. T. Harriss, Washington.

Randolph County Medical Society

The Randolph County Medical Society announces the following officers for 1943:

President—S. P. Kenyon, Dawson.
Vice-President—L. R. Massengale, Lumpkin.
Secretary-Treasurer—W. G. Elliott, Cuthbert.
Delegate—J. C. Tidmore, Dawson.
Alternate Delegate—L. R. Massengale, Lumpkin.

Mitchell County Medical Society

The Mitchell County Medical Society announces the following officers for 1943:

President—C. L. Roles, Camilla.
Vice-President—J. G. Crovatt, Camilla.
Secretary-Treasurer—D. P. Belcher, Pelham.
Delegate—J. W. Ward, Baconton.
Alternate Delegate—M. M. Burns, Pelham.

Henry County Medical Society

The Henry County Medical Society announces the following officers for 1943:

President—A. W. Carter, Jr., McDonough.
Vice-President—H. C. Ellis, McDonough.
Secretary-Treasurer—E. G. Colvin, Locust Grove.
Delegate—R. V. Brandon, McDonough.

Thomas County Medical Society

The Thomas County Medical Society announces the following officers for 1943:

President—Herbert F. Readling, Thomasville.
Vice-President—S. E. Sanchez, Barwick.
Secretary-Treasurer—Mary J. Erickson, Thomasville.

Jenkins County Medical Society

The Jenkins County Medical Society announces the following officers for 1943:

President—H. G. Lee, Millen.
Vice-President—A. P. Mulkey, Military Service.
Secretary-Treasurer—Q. A. Mulkey, Millen.
Delegate—C. Thompson, Millen.

Brooks County Medical Society

The Brooks County Medical Society announces the following officers for 1943:

President—A. B. Jones, Jr., Quitman.
Vice-President—L. A. Smith, Quitman.
Secretary-Treasurer—Harry A. Wasden, Quitman.

Whitfield County Medical Society

The Whitfield County Medical Society announces the following officers for 1943:

President—G. L. Broadrick, Dalton.
Vice-President—Chas. F. Engelking, Dalton.
Secretary-Treasurer—H. J. Ault, Dalton.
Delegate—Trammell Starr, Dalton.
Alternate Delegate—D. L. Wood, Dalton.

Franklin County Medical Society

The Franklin County Medical Society announces the following officers for 1943:

President—Stewart D. Brown, Royston.
Vice-President—E. T. Poole, Lavonia.
Secretary-Treasurer—B. T. Smith, Carnsville.

Haralson County Medical Society

The Haralson County Medical Society announces the following officers for 1943:

President—E. F. Sanford, Buchanan.
Vice-President—C. W. Downey, Tallapoosa.
Secretary-Treasurer—C. H. Allen, Bremen.

Crisp County Medical Society

The Crisp County Medical Society announces the following officers for 1943:

President—Chas. Adams, Cordele.
Vice-President—H. J. Williams, Cordele.
Secretary-Treasurer—L. O. Wootten, Cordele.
Delegate—P. L. Williams, Cordele.
Alternate Delegate—A. J. Whelchel, Cordele.

Bartow County Medical Society

The Bartow County Medical Society announces the following officers for 1943:

President—S. M. Howell, Cartersville.
Vice-President—H. B. Bradford, Cartersville.
Secretary-Treasurer—A. L. Horton, Cartersville.
Delegate—W. E. Wofford, Cartersville.

Jackson-Barrow Counties Medical Society

The Jackson-Barrow Counties Medical Society announces the following officers for 1943:

President—E. R. Harris, Winder.
Vice-President—J. H. Campbell, Commerce.
Secretary-Treasurer—A. A. Rogers, Commerce.
Delegate—W. T. Randolph, Winder.
Alternate Delegate—A. A. Rogers, Commerce.

Brooks County Medical Society

The Brooks County Medical Society announces the following officers for 1943:

President—A. B. Jones, Jr., Quitman.
Vice-President—L. A. Smith, Quitman.
Secretary-Treasurer—Harry A. Wasden, Quitman.

Montgomery County Medical Society

The Montgomery County Medical Society announces the following officers for 1943:

President—W. M. Moses, Uvalda.
Vice-President—J. E. Hunt, Mt. Vernon.
Secretary-Treasurer—J. W. Palmer, Ailey.
Delegate—H. C. Sharpe, Alston.

OBITUARY

Dr. Thomas Pinckney Waring, Savannah; member; Columbia University College of Physicians and Surgeons, New York City, 1892; aged 76; died on January 8, 1943, at his residence. After he graduated in medicine and interned in New York City, then studied in Germany and Austria before he returned to Savannah to engage in associate practice with Dr. Raymond B. Harris; then he was elected chairman of the staff of Telfair Hospital; later he became associated with Dr. John W. Daniel as a surgeon; later his association with Dr. Daniel was dissolved then he was appointed chief surgeon at Oglethorpe Sanitarium. He remained in this position until his death. Having been born and reared in Savannah, he was one of its most faithful and loyal citizens. He was the oldest active practicing physician who was a member of the

Georgia Medical Society (Chatham County). Rev. David Cady Whight officiated at the funeral services conducted at Christ Episcopal Church. Interment was in Bonaventure Cemetery.

Dr. J. Frank Huss, Atlanta; Southern Medical College, Atlanta, 1894, aged 72; died on January 9, 1943, after an illness of several years' duration. He was a native of Notasulga, Alabama. After he graduated in medicine, he served as an intern for one year, then was elected professor of eye, ear, nose and throat at the Southern Medical College. Twelve years later he began private practice. Surviving him are his widow. Dr. Louie Newton and Dr. Arthur Jackson officiated at the funeral services conducted at Spring Hill Chapel. Burial was in West View Cemetery.

Dr. William Walton Odom, Lyons; member; University of Georgia School of Medicine, Augusta, 1904; aged 71; died at his home on January 29, 1943. He had been sick for several weeks. Dr. Odom had served Toombs County in many ways. Was one time county physician for a number of years; member of the Toombs County Medical Society, steward and member of the First Methodist Church. Surviving him are his widow, one son, William Ernest Odom, New River, N. C.; one brother, D. E. Odom; two sisters, Mrs. Leila Meadows and Miss Ina Odom, all of Lyons.

Dr. Raymond Victor Harris, Savannah; member; University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, 1907; aged 63; died on January 23, 1943, of heart disease at his office. He was born in Darien. His father and his paternal grandfather were practicing physicians. After Dr. Harris graduated in medicine, he spent one year in the University of Maryland Hospital and practiced a short time in Baltimore, then at his father's request he returned to Savannah and did general practice for a number of years. Later he limited his practice to gynecology. He was a member of a number of clubs, F. & A. M., Scottish Rite Mason and Shrine. Surviving him are his widow, two daughters, Mrs. Remer Lane, Savannah, and Mrs. C. Frederick Westin, Mandham, N. J. Funeral services were conducted at the Henderson Funeral Home, Macon. Interment was in the Macon City Cemetery.

Dr. Guy Chappell, Dawson; member; Emory University School of Medicine, Emory University, 1897; aged 68; died on January 15, 1943. He was born in Bronwood. He began the practice of medicine at Herod. Dr. Chappell had practiced medicine in Dawson for more than forty years. He was a captain in the Medical Corps during World War I and served in the American Expeditionary Forces. Dr. Chappell was closely allied to every interest in the profession. He was noted for his charity work in his general practice and in a clinic that he established in Dawson. Surviving him are his widow, one daughter, Mrs. Will Davidson. Rev. R. G. Mann and Rev. J. G. Burgess officiated at the funeral services conducted at the home.

Dr. Andrew Jackson Irwin, Sandersville; University of

Georgia School of Medicine, Augusta, 1884; aged 80; died on January 25, 1943, of heart disease. He was born and reared in Sandersville. He practiced medicine for a few years in Mayfield, associated with Dr. S. D. Brantley, then moved to Sandersville. He came of one of the illustrious families of Georgia. Surviving him are his widow, one daughter, Mrs. W. H. Armstrong, Sandersville. Rev. E. G. Orahoad officiated at the funeral services conducted at the home. Burial was in the old city cemetery of Sandersville.

OGLETHORPE UNIVERSITY SCHOOL OF MEDICINE DIAGNOSTIC OUT-PATIENT CLINIC

In keeping with its program of rural medical service Oglethorpe University School of Medicine takes pleasure in announcing the opening of an Out-Patient Diagnostic Clinic for rural patients, March 10, 1943. The purpose of the clinic is to furnish for those unable to pay and unable to secure similar service in their community, a complete diagnostic study of their condition. The service will operate in the manner of consultation service, through the family physician, to whom all reports will be made. Patients from all sections, but especially those residing in rural areas adjacent to Atlanta, will be received.

The new clinic will be located in Atlanta, Georgia, in the large building recently acquired for the medical school at the junction of Edgewood Avenue, Coca-Cola Place and Piedmont Avenue, a stone's throw from Grady Hospital, Atlanta's Municipal Hospital, in the very heart of the proposed medical center. The building will be completely renovated into well appointed examining rooms, clinics and x-ray laboratories, modernly equipped throughout. The admitting offices, social service department and record room will be conveniently located upon the first floor near the triangular entrance to the building.

Admittance to the clinic will be by application made through the Director of Clinics of Oglethorpe University School of Medicine in writing. The application should be accompanied by a letter from the last attending physician and a minister. If, after a careful study of the applicant's financial circumstances he is found able to pay a reasonable fee he will be advised to consult a private physician. Those admitted are required to sign an affidavit of inability to pay.

A charge of fifty cents is made to cover expense of registration, reports, etc.

In unusual cases a cash charge may be made for special x-ray or highly specialized laboratory tests, drugs, etc. In no instances are charges made for professional services.

The departments of the clinic will embrace Medicine, Surgery, Gynecology, Obstetrics, Eye, Ear, Nose and Throat, Pediatrics, Cardiology, Neurology, and Urology. A complete attending staff from the faculty of the Oglethorpe University School of Medicine will render professional service.

Applicants should address:

Director of Clinics,
Oglethorpe University
School of Medicine,
Atlanta, Georgia.

BEHIND THE DOCTOR

C. C. LITTLE, Sc.D., Managing Director of the
American Society for the Control of Cancer

In any Democracy the forces that stand behind the doctor are quite as important as the training and ability of the doctor himself. Among the public health movements in the United States no group has recognized this basic principle more promptly or more completely than the American Society for the Control of Cancer in conducting its nation-wide educational campaign against that disease.

In 1936 the Society organized as a practical working unit of lay people what it called the Women's Field Army Against Cancer. From the very outset it was specified that this group of lay workers in the educational field should be guided by governing bodies, and the majority of whose members should be medical men or women. The Society and the Field Army thus definitely committed itself to a policy of standing back of the doctor in the fight against cancer.

The wisdom of this attitude has been amply proven. Today doctors all over the United States report a constantly increasing flow of early cancer cases to their offices for diagnosis and treatment. Since the prospect of cure of cancer is directly related to the observation and treatment of the disease in its early stages, this evidence of practical value of the Women's Field Army work has convinced the medical organizations of countries and states throughout the Union that real progress can be made in the conquest of the disease.

The mutual benefits to both the patient and the profession have been great. Either group by itself could never be as strong or effective as in close cooperation with the other. Mutual confidence and respect lead to a development of the best qualities of both groups. This sort of progress will count heavily in determining the progressive advance against this disease in the years to come. We are on our way toward cancer control and both the doctor and the prospective patient can face the future certain that sympathy and understanding will continue to decrease the possibility of conflict and obstruction in the drive toward final victory.

CANCER COMMISSION MEDICAL ASSOCIATION OF GEORGIA

ATLANTA

To the Medical Profession of Georgia:

Again your Cancer Commission wishes to call your attention to the importance of early diagnosis as the paramount feature in the cure of cancer.

The changes which occur in a local group of cells and mark the beginning of cancer do not affect the function, size or shape of the organ until the cancer has progressed beyond our control. Therefore, with our present knowledge of cell behavior, we cannot hope to detect these changes at an early date when they occur in the internal organs of the body. This is not true, however, of the accessible parts of the body where the vast majority of cancers are located.

Since November 1, 1937, 5,250 persons have been treated for cancer in the State Aid Clinics. Of these,

4,225 had lesions in accessible parts of the body; 2,113 or 50 per cent, cancer of the skin; 887 or 21 per cent, cancer of the womb; 845 or 20 per cent, cancer of the breast, and 380 or 9 per cent, cancer of the mouth. Cancer in these locations presents quite definite early signs and should, as a rule, be recognized early.

Early cancer of the skin: A slightly raised, scaly spot which does not yield to ordinary treatment. It may be cured by a light cautery or the application of radium. Flat black moles (melanomas) do not respond to radium and are made worse by cautery. Wide, deep excision is the only cure. They are exceedingly dangerous.

Cancer of the cervix uteri: Occurring about the change of life and most frequently in women who have borne children. The first sign is usually spotting on the night clothes — excessive bleeding during and between menstrual periods. Such signs demand careful examination

Early cancer of the breast: Also occurring about the change of life, but equally frequent in women who have borne children and those who have not. The one sign is a painless lump. Occasionally, there is bleeding from the nipple; but remember the painless lump.

Early cancer of the mouth: A sore on the lip, the tongue, the inside of the cheek, the gums, the floor of the mouth, or the throat. It is painless; but waste time and the patient will surely die.

J. L. CAMPBELL, *Chairman.*

January 22, 1943.

PHYSICIANS NEEDED AS REPLACEMENTS IN CIVILIAN SERVICE

Three hundred and five older physicians already have been voluntarily relocated to new areas as a part of their contribution to the war effort, but opportunities still remain for service in critical areas, boom towns and large industrial organizations in the replacement of physicians who have gone or who are willing to go into the armed forces, *The Journal of the American Medical Association* points out in its January 9 issue. *The Journal* says:

Every physician may well take pride in the manner in which the medical profession has responded to the nation's call for service. More than one month ahead of schedule the medical profession voluntarily met the procurement objectives (quotas) of the Army and Navy. The response to calls for service continues; through the Procurement and Assignment Service carefully considered scientific planning of future procurement objectives has been formulated. The willingness of physicians to enlist before quotas were established greatly reduced the number of remaining physicians in some areas. Already three hundred and five older physicians have been voluntarily relocated to new areas as a part of their contribution to the war effort. Opportunities still remain for service in critical areas, boom towns and large industrial organizations in the replacement of those physicians who have gone or who are willing to go into the armed forces. Younger physicians, those under 37 years of age who are physically disqualified for the armed forces, are urgently needed. Total war means total effort of every individual for victory. Physically disqualified physicians under 37 years of age may be most effective in the war

effort by offering their services to the Procurement and Assignment Service. The state committee of the Procurement and Assignment Service in each state will discuss the arrangements and opportunities for this service with those who volunteer."

ANNOUNCEMENT

Refresher Course

LARYNGOLOGY, RHINOLOGY AND OTOTOLOGY

March 22 to 17, 1943

University of Illinois College of Medicine

To meet the needs of ear, nose and throat specialists who, under existing conditions, are able to devote only a brief period to postgraduate review study, this didactic and clinical course has been arranged. Registration is limited. The fee for the complete course is \$50.00. In letter requesting application for registration, state school and year of graduation, also details concerning specialty training and experience.

Address Department of Oto-Laryngology, University of Illinois College of Medicine, 1853 West Park Street, Chicago, Illinois.

POSTOPERATIVE VITAMIN DEFICIENCIES

Prolonged chronic illness followed by sharp limitation of diet during a period of preoperative preparation, especially when surgery of the gastrointestinal tract is contemplated, may result in a state of partial vitamin depletion. Most parenteral fluids routinely contain glucose, which sets up an additional drain on the vitamin B stores in the body. Postoperatively, nausea and vomiting occur frequently and there is often the necessity for complete restriction of food for days at a time.

This sequence of events was clearly reproduced in a case recently reported (*Ann. Int. Med.*, 18:110, 1943). The patient developed a sore tongue and became uncooperative, disoriented, and confused. A dramatic change ensued after administration of riboflavin and nicotinic acid, with complete disappearance of the lesions within five days.

A number of laboratory procedures have been developed in recent years to augment the clinical diagnostic approach to vitamin deficiency disease, but many of them require special equipment and are not easily adaptable for routine clinical use. Physicians may obtain a list of vitamin values of foods and a bibliography of important and generally informative papers on vitamins by writing Eli Lilly and Company, Indianapolis.

WAR PRODUCTION BOARD ORDER AFFECTS VITAMIN CAPSULES

To conserve vitamin A supplies during wartime, WPB order L-40 limits the content of capsules to 5,000 vitamin A units.

In compliance with this order, capsules of Mead's Oleum Percomorphum 50 per cent with Viosterol now contain 83 mg. of oil, equivalent to 5,000 vitamin A units and 700 vitamin D units per capsule.

The new size capsule is now supplied in boxes containing 48 and 192 capsules — about twice the number of capsules without increase in price.

THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

The seventh annual meeting of the New Orleans Graduate Medical Assembly will be held in New Orleans, March 15-18, with headquarters at the Roosevelt Hotel. As in former years, a well-rounded program has been planned, consisting of lectures, symposia, conferences, clinics and round table discussions, supplemented by scientific exhibits and motion pictures. In addition, there will be the usual exhibits of established pharmaceutical and equipment houses, as well as of medical publishers.

The speakers, as will be observed from the list published elsewhere in this journal, are all men of authority in their special branches, and their addresses and discussions will cover all aspects of medicine and surgery, including industrial medicine. Sister Elizabeth Kenny will present the treatment of infantile paralysis which she has been teaching elsewhere in the United States for the past year or more, and military medicine will be discussed by four representatives of the Army and Navy Corps.

Omission of this meeting because of the war was naturally considered by members of the Assembly, but it was voted unanimously to continue with it for three reasons: 1. Local medical meetings are of special usefulness at a time when national meetings have been generally suspended because of transportation and other difficulties. 2. Even if national meetings were being held, physicians could not spare the time from their practices to attend them, but can frequently plan to attend meetings closer to home. 3. At this time, when the responsibilities of physicians are increasing in both the armed services and in civilian practice, it is of more importance than ever that they be aided in keeping abreast of the newest advances in the general and special fields of medicine.

Physicians interested in attending the 1943 meeting of the New Orleans Graduate Medical Assembly are invited to register at once with the Secretary, Room 105, 1430 Tulane Avenue, New Orleans, Louisiana. The registration fee of ten dollars covers all features of the Assembly, including the daily luncheons during the four days of the meeting. Conference headquarters will be at the Roosevelt Hotel and reservations should be made as soon as possible.

BOOK REVIEWS

New and Nonofficial Remedies, 1942, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1942. Cloth. Price, postpaid, \$1.50. Pp. 671—XCVII Chicago: American Medical Association, 1942.

Perhaps the most important feature of this new volume of New and Nonofficial Remedies is the radical rearrangement it has undergone, which it is believed will make the contents more accessible and therefore more valuable to the physician or other interested readers. Heretofore, the classification of products has been basically that of chemical relationship—the new arrangement is primarily according to therapeutic use, chemical classification being introduced by means of

subheadings. In addition, the typographic style has been changed so as to give greater prominence to the products of individual manufacturers. No valuable feature has been sacrificed. The book still fulfills its function of establishing chemical standards for new and nonofficial preparations which the Council has found to be useful or to give adequate promise of usefulness in the treatment or prevention of disease. Its function as a guide to the most recent advances in therapeutics has been greatly enhanced.

Careful examination of the general discussions under the various headings and subheadings shows that the Council has admirably performed its annual task of keeping the text abreast with the progress of medicine. The authoritative and compendious section of the sulfonamide derivatives is an outstanding example. So also is the chapter, Vitamins and Vitamin Preparations for Prophylactic and Therapeutic Use. Equally important though less extensive revisions have been made in such sections as, Aluminum Compounds, Dextrose, Gonadotropic Substances, Liver and Stomach Preparations, Ovaries, Parathyroid, Pituitary, and Testes.

Among the newly accepted drugs are: Acetyl-Beta-Methylcholine and the proprietary brand, Mecholyl Chloride, proposed for use by iontophoresis, orally and subcutaneously as a parasympathetic stimulant; Adrenal Cortex Extract for parenteral use in the treatment of Addison's disease or of adrenal insufficiency of other types as well as prophylactically in surgical procedures involving the adrenal cortex; Aluminum Hydroxide Gel with the proprietary brand, Creamalin, for oral use as an adjunct in the treatment of peptic (gastric and duodenal) ulcer; and Normal Human Serum and Normal Human Plasma.

Others worthy of mention are: Clclopropane, another general anesthetic, now included in the U.S.P.; Amyl-caine Hydrochloride, another proprietary local anesthetic and Pernoston Sodium, the sodium salt of the previously accepted proprietary barbitol derivative, Pernoston.

The indices of the new volume of New and Nonofficial Remedies are of the same order and plan as in previous editions. A general index lists accepted articles, including those not described. This is followed by an index to distributors in which appear all the Council accepted articles listed under their respective manufacturers. Finally, a bibliographical index is added for listing proprietary and unofficial articles not included in N.N.R. This includes references to the Council publications concerning each such article as has appeared in *The Journal of the A.M.A.*, Reports of the Council on Pharmacy and Chemistry, Propaganda for Reform, Vol. 1 and 2, or Reports of the A.M.A. Chemical Laboratory.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1941, with the Comments That Have Appeared in *The Journal*. Chicago: American Medical Association, 1942, price \$1.

The Council on Pharmacy and Chemistry recently issued the thirty-third edition of the Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association. This volume con-

tains in compact form not only the reports of the Council which have been published in *The Journal* during the past year but also some additional reports which were not considered of sufficient importance to be published in *The Journal*. The reports may be divided into four classes: reports rejecting products as not being acceptable for inclusion in New and Nonofficial Remedies, reports omitting from New and Nonofficial Remedies products that have previously been accepted, reports on the nomenclature of various substances and reports in which the Council gives decisions of general interest or summarizes the latest scientific knowledge concerning certain topics. The last classification includes the largest number of reports. One article deals with the developments in bacteriophage therapy since the previous report of the Council in 1934. Other reports bring to the present day the status of such products as aluminum hydroxide preparations, antipneumococcic serums, cyclopropane, human blood plasma and serum, human convalescent poliomyelitis serum, human convalescent mumps serum and sulfadiazine. Such topics as ion transfer (iontophoresis), halogenated vegetable oils for bronchography and the problem of lipid pneumonia and the sympathomimetic amines as epinephrine substitutes are discussed. The nomenclature reports deal for the most part with the Council's adoption of nonproprietary designations for comparatively new products such as diethylstilbestrol, menadione and sulfadiazine. Explanations are given for the omission at this time of products which have previously been included in New and Nonofficial Remedies. In most cases the N. N. R. description is included in the report as a matter of record. The volume also includes the reports rejecting various products — which have either been submitted by the manufacturer or considered on the Council's own initiative — and which have been found not acceptable for inclusion in New and Nonofficial Remedies. Also incorporated is a brief summary of the decisions arrived at by the Council at its latest meeting.

The Association of Railway Surgeons of the Atlanta and West Point Railroad, Western Railway of Alabama and Georgia Railroad will hold its annual meeting at the Biltmore Hotel, Atlanta, March 25, 1943. Dr. J. R. Garner is chief surgeon and Dr. John P. Garner assistant chief surgeon.

SOME GOOD EQUIPMENT FOR SALE

1 McKesson Special Anesthesia Machine (factory reconditioned) without Case.....	\$ 35.00
1 McKesson Special Anesthesia Machine (factory reconditioned) with case.....	60.00
1 McKesson Metabolor No. 175 on Stand (factory reconditioned, practically new).....	110.00
1 Community Oxygen Service Machine, new.....	60.00
1 DeForest Dynatherm, 18-meter, Walnut Case, new	325.00

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LUPTON HALL

Laboratory of Pharmacology, Physiology and Bacteriology

OGLETHORPE UNIVERSITY SCHOOL OF MEDICINE ANNOUNCEMENT

The Oglethorpe University School of Medicine, Atlanta, announces the opening of its outpatient clinic, March 10, 1943, in the Clinic Building recently acquired for the Medical School at the junction of Edgewood Avenue, Coca-Cola Place and Piedmont Avenue.

The Clinic will serve both the Municipal and rural populations.

Rural patients should make applications in writing.

A complete staff from the faculty of the Medical School will render professional service.

For further information address

DIRECTOR OF CLINICS

OGLETHORPE UNIVERSITY
SCHOOL OF MEDICINE

Atlanta

Georgia

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

VOL. XXXII,

Atlanta, Georgia, March, 1943

Number 3

BRONCHIECTASIS

CARL C. AVEN, M.D.

Atlanta

The high incidence of bronchiectasis is of vital importance to the medical profession. In 1819 this diseased state of the bronchi was described by Laennec. The term bronchiectasis merely means a dilated bronchus, or dilated bronchi, and according to their form, one may recognize by iodized oil injection, saccular, cylindrical, clubbing, grape and bead formation dilatations.

Theories concerning the mechanism of production of bronchiectasis:

Mechanical pressure of stagnant secretions.

Nutritional changes in the bronchial wall.

Forced inspiration.

Neuromuscular mechanism.

Intrapulmonic extrabronchial factors, "cirrhosis pulmonum."

Relation of emphysema to bronchial dilatations.

Predisposition.

The cause of bronchiectasis in many cases is still obscure but it may be congenital, may be acquired in early childhood, or may be a clinical syndrome in the latter years of life. Therefore, it should be of interest to all physicians.

The factors at play in bronchiectasis are:

(a) Intrabronchial, such as foreign bodies, bronchial tumors, etc.

(b) Bronchial, with such changes as atrophy, ulcer formation and proliferation, loss of elastic tissue, fusiform disease, and many other factors.

(c) Peribronchial, from disease and enlarged glands, tumors, aneurysms, etc.

(d) Pulmonary, with such factors as pneumonia, influenza, abscess, whooping cough, tuberculosis, fungus disease, emphysema, etc.

(e) Pleural, with such factors as adhesions, effusions, etc., and lastly, deformities of the bony structures, such as rickets, etc.

Bronchiectasis probably has the highest incidence of any chronic disease of the pulmonary structures. Oschner says it is probably more prevalent than tuberculosis. Pridde reports it as high as 7.1 per cent of all adult male medical hospital admissions. Lemon reported it in 4 per cent of all children admitted to the Mayo Clinic in 1920 to 1925. Abstracts from a paper based on experiences in the Department of Medicine of the University of Chicago are quoted:

"Primary or predisposing conditions and the secondary or immediate cause are recognized. The primary condition consists largely of the array of upper respiratory tract infectious diseases. Among the secondary causes, involvement of the nasal sinuses, chiefly the maxillary ones, plays the dominant role in the origin of bronchiectasis. In this series forty-five per cent had definite, and thirty-three per cent indefinite sinusitis. The discovery of a sinus condition is not only of etiological interest but of great therapeutic importance. Sinus involvement cannot be ruled out without a roentgenological examination. Treatment of sinusitis cannot be expected to influence existing bronchial dilatations except, perhaps, in the small child, but it is a prerequisite for the attempt to arrest the process.

"The symptoms found in the group did not conform to current beliefs. The general condition was poor in twenty-five per cent, and just fair in the rest. Copious expectoration, however, occurred only in about two-thirds, and odorous sputum, supposedly an outstanding characteristic of the condition, in less than half. Hemoptysis occurred frequently enough to be eliminated as a criterion in the differentiation of bronchiectasis from other pulmonary diseases, especially tuberculosis." Jackson stated

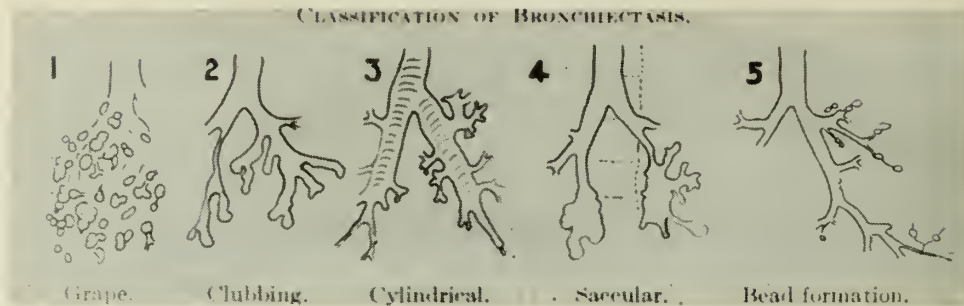


Fig. 1.
Classification of Bronchiectasis.

that influenza and complications are the most frequent single exciting cause.

Symptoms are dependent on the degree of dilation, size, and number of cavities, on the nature and degree of secondary involvement, and probably most of all on the degree of accompanying pulmonary involvement and bronchitis. The chief symptoms are cough and expectoration, but not necessarily expectoration. The cough is not characteristic and may be intermittent with remissions, but usually is worse in winter months as upper respiratory infections cause a flaring-up of the process. The sputum may be purulent, mucopurulent, or hemorrhagic, and in some instances it may be frank blood. Some so-called dry bronchiectasis cases have been shown by observers recently to be bronchial erosions. This observation can only be verified by careful bronchoscopic examination. Suppurative pneumonitis, or mild bronchopneumonia may occur when the patient is attacked by acute respiratory infection resulting in a febrile state in an otherwise latent case.

In brief, fever, chills and sweats are significant complaints, and usually mean acute pneumonitis of some kind, and not due so much to the retained secretions in bronchi. Hemoptysis is perhaps more common in bronchiectasis than in tuberculosis. Pain obviously is not a common complaint and when present one should consider the possibility of a malignant process, bronchial stones, spontaneous pneumothorax or a pleuritic involvement from an acute pneumonitis. Dyspnea may be noted. Joint pains are not uncommon and when present are but another manifestation of the same process which causes clubbing of fingers.

The diagnosis of bronchiectasis should

be considered incomplete unless certain facts are noted: the location of the disease — the lobe or lobes involved, the size and distribution of the dilatations, the shift of the mediastinal contents, and whether or not the lesions are tuberculous. Emphasis must be placed on the use of the tuberculin test and repeated sputum examinations for acid-fast bacilli.

The presence or absence of various systemic or local manifestations, such as bronchial stenosis, foreign body, tumors, empyema, etc., must be revealed.

To complete the diagnosis such examinations as the following are necessary to acquire information:

1. Clinical history; 2, physical findings; 3, laboratory findings; 4, ordinary x-ray and fluoroscopic examinations; 5, bronchography; 6, bronchoscopy, and 7, diagnostic pneumothorax.

In looking for bronchiectasis, there is no place in medicine where the old adage "a careful history is half the diagnosis" is so true. The past history with reference to pneumonia and repetition of same; whooping cough, cardiac disease or contact with tuberculosis and influenza and its frequency all are important. Many patients have spent months and years in sanatoriums for tuberculosis without having proper diagnosis of their bronchiectasis, perhaps because physical findings in this condition are notable for their absence.

Laboratory findings of blood examinations may show mild or moderate anemia, and varying leukocytic reaction. Bacteriologic findings are not consistent, but David T. Smith noted the presence of spirochetes (oral) and fusiform bacilli, vibrions, etc., in sputum as a cause of the so-called primary bronchiectasis. Examination of



Fig. 2.
Position of patient for injection of iodized oil into bronchi to demonstrate bronchiectasis.

sputum for these organisms should be done with fresh specimens of sputum.

Varney found that streptococci, spirochetes and fusiform bacilli, with a non-motile, anerobic gram negative rod, were the organisms found in most untreated patients, and with treatment such organisms were greatly diminished or disappeared entirely from the sputum.

X-ray examination without opaque oil is not diagnostic; it is only suggestive. Technic used and films described as follows:

Phenobarbital, $\frac{1}{2}$ to $1\frac{1}{2}$ grains, is given one hour before examination to allay anxiety and to counteract the effects of cocaine.

Fauces, pharynx, and nares are sprayed with 3 per cent cocaine solution. When parts are well anesthetized, patient's tongue is held forward by gripping with towel or gauze and patient then leans well to the side to be injected. While in this position 1 to 3 cc. of cocaine solution is slowly instilled through nostrils by the operator. A blunt tip aseptic syringe is used for this purpose. This usually provokes an attack of coughing, but anesthesia of trachea and bronchi soon follow.

The oil (iodized) previously warmed is then introduced as indicated in Fig. 2. The procedure is simplified by the operator standing on the opposite side of the patient.

The bubbling of air through the oil as it gravitates into the bronchi to be injected is audible to the patient, and, if explained before, causes no alarm. If both sides are to be injected, which may be done without harm, you may reverse the procedure by having patient lean to opposite side.

Avoid trying this technic in extremes of age; be cautious about reactions from cocaine, and inquire about allergic reactions to iodine, peanuts, poppy seed, and other ingredients that may be used.



Fig. 3.
Iodized oil in bronchi showing, in this instance, bilateral bronchiectasis in lower lobes.

Bronchoscopy is a valuable adjunct for these reasons:

1. To rule out foreign body and tumor.
2. It permits observation of discharging pus.
3. In some cases, by aspiration of secretion it permits more and better visualization of the bronchi.
4. It makes possible the collection of uncontaminated sputum for culture.

Treatment Non-operative

Rest only aids while patient is in bed and yields no permanent improvement. Diet and climate are of no avail.

Postural drainage is most valuable.

The location, the extent and type of disease present must be known to intelligently apply this treatment. It is obvious that an extreme upper lobe involvement will not respond to drainage by just lowering of the head and chest. Iodized oil is of undoubted value in some cases. Vaccine therapy, bronchial lavage, inhalations of heated medicated vapor, etc., all have practically been abandoned. There is no doubt in my mind that iodine therapy, as Lugol's solution 10 to 15 drops well diluted three times a day, has a definite place in the treatment of some patients. It evidently aids in expectoration and frequently decreases the amount of sputum. Iron and adequate vitamin therapy are only adjuncts for anemia and secondary symptoms.

Again quoting from the paper by Block and Francis of the University of Chicago, may I use their exact words:

"The most important of all therapies, prevention, has been sadly neglected up to

now. There is a good deal of parental negligence toward chronic, upper respiratory infections and moderate chronic bronchitis in children. The threat of a severe and permanent bronchial damage is practically unknown. People to whom tuberculosis is a household word have not heard of bronchiectasis, although physicians recognize it as, next to neoplasm, the most hopeless pulmonary disease as far as restitution of the diseased part of the lung is concerned. Great concern is felt when a child aspirates a foreign body, considerable attention is paid nowadays to impairment of the respiratory function from allergic causes, but the danger of the slow and continuous drainage of infected material into the bronchial passages and of the resulting bronchitis is underestimated. And yet it is the chief causative factor of bronchiectasis, especially of the extensive and life-threatening variety. We should venture to say that in proportion to the growing recognition of the role which chronic sinusitis has in this disease, its occurrence should decrease. At present it needs to be looked upon as a public health problem requiring the efforts of agencies concerning themselves with public health. By propaganda, examination of the sinuses, including a roentgenogram, should be suggested to the patient and guardians of all children in whom no other cause of a chronic cough can be found. The component treatment of sinus conditions should be suggested."

Conclusions

1. Bronchiectasis is more prevalent than usually believed.
2. All age groups are affected.
3. Bronchoscopy and bronchography are the principal procedures for correct diagnosis of this condition.
4. That medical treatment and care can offer years of usefulness to many of these individuals.
5. That proper care of upper respiratory infections is an important preventive factor.
6. That our present approach to properly selected cases is surgical removal of the offending lesion.

TREATMENT OF LUNG ABSCESS WITH ALCOHOL INTRAVENOUSLY

Preliminary Report

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Lung abscess holds the rather dubious distinction of being one of that ever smaller group of diseases or conditions that is not amenable to sulfonamide therapy — especially is this true of putrid lung abscess. I suppose we really should be thankful that there are a few such conditions left, else we should all grow fat and stupid from writing "Joe Glutts," a prescription for sulfathiazole 7½ grains, two every four hours, and screaming "Two dollars, please."

Lung abscess is divided roughly into two groups — putrid and non-putrid. The specific cause is frequently difficult to determine, but by and large the putrid group is caused by anerobic organisms. The abscesses are usually the result of aspiration of some foreign matter with resultant collapse of the area of the lung involved, and rapid necrosis. For this reason they are usually unilocular and located close to the periphery of the lung. They frequently follow general anesthesia.

The non-putrid group is caused by the aerobes which commonly invade the lung, principally the pneumococcus, streptococci hemolyticus, aureus and viridans. This group is frequently associated with bronchopneumonia and, occasionally, bronchiectasis. Since these lesions are usually widespread, involving no single bronchus, the abscess is usually multilocular or may even be bilateral.

The question of operation in lung abscess is an interesting one. Touroff and Neuhof¹, who have published more work on the subject than any others in recent years, state that putrid lung abscess, being unilocular and peripheral, should be operated on early, that the risk is not great and the improvement is almost immediate; whereas the non-putrid abscess, being multilocular and more likely to be centrally

¹Read before the Medical Association of Georgia, Augusta, April 30, 1942.

located in the lung, is essentially non-surgical. The non-putrid abscess, however, does have a greater tendency to subside spontaneously. If the abscess ruptures into the pleural space it is a surgical emergency.

Medical treatment has been wide and varied, and I believe most of us will agree it has been unsatisfactory. Sulfonamide therapy has been reported helpful in some non-putrid cases.² Postural drainage, bronchoscopic drainage and lavage, and various supportive measures all have their advocates. Pneumothorax has been almost entirely abandoned. A certain number of patients either recover spontaneously or as a result of medical care. In the papers we reviewed this varied in the putrid type from 20 to 35 per cent,³ and in the non-putrid cases the reports of cure were up to 50 per cent. In almost all of these, however, the progress was slow and exasperating.

In reading this paper we do not attempt to credit ourselves as an authority on the treatment of lung abscess. We merely want to make a preliminary report of a simple method of treatment which in our hands has given dramatic results in a condition which heretofore has been notably hard on our reputations in the community in which some of us live—not to mention our dispositions.

One virtue of this treatment, if there be any, is that it requires no special laboratory equipment and no special medical or surgical skill. All you need is a 20 cc. syringe and needle and the ability to puncture a vein. I do not mean to say the diagnosis should not be accurate. Tuberculosis should be definitely ruled out, but it is not necessary to isolate the causative organism to determine the exact position of the lesion in the lung—whether it is multilocular or unilocular, or even if it is putrid or non-putrid, though I think most of us will agree that is not hard to do.

Another virtue of this treatment is that if improvement occurs, it occurs promptly. There is no literature in the English language on this subject. However, there are several articles in Russian, German, French, and one in Yugoslavian. None of these reprints was available, which is probably just as well because my Russian is not what it

might be. One of us, Dr. J. T. McCall, Jr., had an opportunity to observe this treatment at the American Hospital in Paris, and was so pleased with the results that we decided to try it on a patient in the hospital who had a chronic abscess that had resisted the usual postural drainage and sulfonamide therapy. Since that time we have treated three other patients, all of whom we shall report.

The solution we use is made up as follows: Thirty cubic centimeters of absolute alcohol and 70 cc. of 33.3 per cent glucose. Of this solution 20 cc. are given intravenously three times a day. It should be given at the rate of 1 cc. per minute, requiring twenty minutes for the entire injection. If given faster it causes severe aching pain along the course of the vein. At best the solution is irritating, and after a vein has been used for three or four injections it becomes obliterated by chemical phlebitis and another vein must be used. This is the only untoward result noted in any of our cases. The injections are continued three daily for five days. If at this time the temperature is normal and the patient shows marked clinical improvement, it is discontinued. If the temperature is still elevated and the clinical improvement is not marked it is continued for five more days.

The *modus operandi* of this treatment is obscure. The fact that alcohol is eliminated largely through the lung would make one think this is probably a factor; but it also raises the question of why alcohol by mouth three times a day would not be just as efficacious. We can't answer that. The concentration of the alcohol in the blood was not determined in any of our cases. This should be done, and we hope to make future reports which will answer this question.

If those of you listening have a skeptical attitude with regard to this therapy, I must frankly confess I cannot blame you. It sounds like "wild cat" therapy to me, and I cannot think of any logical reason why it should "work." However, there is one argument in its favor that I cannot explain away; that is, at least in our cases, the

patient has had dramatic and almost immediate improvement.

Report of Cases

One of our four patients died, so we will get that off our chest first.

Case 1—L. H., a thirty-eight year old white male, employe of the Georgia Power Company. He was admitted to the hospital on Oct. 23, 1940, with a history of a severe cough producing large quantities of foul-smelling sputum for a period of several months. In January, 1940, the patient had a prolonged ether anesthetic for repair of a postoperative ventral hernia, and since that time has had a constant cough. On Aug. 15, 1940, he was put to bed with a diagnosis of influenza, and had been in bed almost continuously until admission to the hospital. The cough became progressively more severe, producing more and more sputum all the time. The patient had been treated with sulfanilamide, cod liver oil, and various supportive measures. There had been a weight loss of thirty pounds from August 15 to October 23. History otherwise was not remarkable. X-ray and physical examinations disclosed abscess area in the base of the right lung. Examination otherwise was not remarkable. Laboratory work was as follows: hemoglobin 65 per cent; R.B.C., 4,150,000; W.B.C., 24,100; small lymphocytes 18 per cent, neutrophils 82 per cent. Urinalysis clear, amber, alkaline reaction, specific gravity 1.010, albumin and sugar negative, occasional epithelium, moderate amount of amorphous phosphate. Sputum: many pus cells, no acid-fast organisms or fusiform bacilli found on several examinations. Cultures were not made. Postural drainage twice a day with supportive care were instituted for four days. The patient was then given alcohol and glucose, 20 cc. intravenously, three times daily for ten days. At the onset of the treatment the temperature was ranging from 101 to 103 daily, pulse rate 90 to 120, respiration 20 to 30. After ten days the temperature had gradually subsided, pulse rate returned to a normal level, cough was markedly diminished in amount, and the patient stated that he felt better than he had in months. Patient was kept in the hospital for ten days longer during which time the temperature was normal, postural drainage produced no sputum; moderate cough persisted but almost no sputum was produced. During this time the patient enjoyed continued improvement. He was discharged on Nov. 19, 1940, after 26 days' hospitalization.

The patient returned to the hospital for x-ray examination in December, 1940, and reported a marked weight gain and stated that he had never felt better in his life. About December 24 he developed a severe pain in his right chest, and his temperature recurred. He was readmitted to the hospital on December 26. Aspiration of the right pleural cavity returned yellowish-brown foul-smelling fluid. A rib resection was done, and a drainage tube was placed in the pleural cavity. Drainage was profuse, the distressing cough recurred, and the patient developed a bronchial fistula. Despite the repeated transfusions, sulfathiazole therapy with supportive care, his condition became progressively worse, and the patient died on Jan. 12, 1941.

Summary: This patient apparently obtained ideal results from intravenous alcohol therapy. The abscess,

being placed directly over the diaphragm, ruptured into the pleural cavity approximately six weeks after treatment was discontinued. The abscess was markedly diminished in size at the time, but a pocket of pus remained in this area. The opening into the bronchus had apparently become plugged, blocking drainage in this manner.

Case 2—Mrs. M. A. N., a twenty-eight year old housewife. Patient had had a severe cough for approximately a year, which did not respond to her physician's treatment. She was sent to the Oschner Clinic in New Orleans, where a diagnosis of bronchiectasis was made, and a lobectomy was advised. While on the train on her way back from New Orleans, the patient developed what appeared to be a typical bronchial pneumonia. She was seen by us after her return, and was admitted to the hospital on Oct. 24, 1940. Laboratory work was as follows: blood: hemoglobin 70 per cent; R.B.C. 3,504,000; W.B.C. 12,800, small lymphocytes 13 per cent, large lymphocytes 1 per cent, polynuclear neutrophils 86 per cent. Urinalysis: straw colored, clear, acid reaction, specific gravity 1.012, albumin and sugar negative, microscopic examination negative. Sputum: no acid-fast bacilli, many pus cells. Sputum was not cultured. She was given sulfathiazole therapy 15 grains every four hours, off and on for four weeks, along with repeated transfusions and supportive care. During this time the cough became increasingly worse, and the patient produced enormous quantities of sputum. Intravenous alcohol therapy was considered, but the abscess was apparently multilocular, covering a widespread area in the lung. Our experience with this therapy having been limited, we were hesitant to advise it in this case. After four weeks the patient was discharged, remaining at home for two weeks. During this time her condition became progressively worse; the patient continued to lose weight and her temperature ranged from 100 to 102.

After two weeks at home, at the patient's own request, she was readmitted to the hospital for intravenous alcohol treatment. Sputum examination showed a few short chain streptococci. In ten days she received twenty-nine injections intravenously of 20 cc. doses of the alcohol-glucose solution. At the end of this time the temperature seldom rose above 99, and improvement was marked. The appetite was ravenous, and the patient had a sense of well-being that she had not felt for months.

At the present time, a year after this treatment was given, she continues to be well; maintains a weight gain of 35 pounds above her weight upon admission to the hospital; seldom, if ever, has a cough and is remarkably free from upper respiratory infections. She does all her housework, and looks after two small children, one or the other of whom I may say, seems to be sick all the time. I think it is only fair to tell you that there is a very devout Baptist minister who was doing some consecrated praying for this patient during the time of her hospitalization. The opinion is about divided in the community as to who deserves the credit for the cure.

Case 3—A. H. H., a fifty year old white textile worker. This patient was admitted to the hospital on Sept. 18, 1940, with history of onset of acute pain in the lower right chest about three days before admission. This

pain was so severe that it required morphine for relief. He had no cough at the onset, and no fever. The temperature rose gradually for the first twelve hours. The pain was of such severe nature that as soon as the effect of morphine was worn out, he would have to have another hypo. The second day following the onset of the pain he complained of marked shortness of breath, some diminution of the pain on breathing. He was admitted to the hospital at this time.

Laboratory work was as follows: blood: hemoglobin 80 per cent; R.B.C. 4,400,000; W.B.C. 16,100, small lymphocytes 7 per cent, large lymphocytes 3 per cent, eosinophiles 2 per cent, polynuclear neutrophiles 88 per cent. Urine: acid reaction, specific gravity 1.020, albumin trace, sugar negative, occasional hyaline cast, occasional pus cell, occasional blood cell per high powered field. Sputum: no acid-fast bacilli, many pus cells, few short chain streptococci; no other organisms seen on the smear. A diagnosis of pulmonary embolism was made, the abscess forming from this embolism later ruptured into the pleural cavity. On October 16 under local anesthesia a stab wound was made between the seventh and eighth ribs below the angle of the right scapula. Approximately 300 cc. of brownish-colored, foul-smelling fluid was aspirated, which contained a moderate amount of pus and blood but no organisms were seen on stained smears. A medium size Pezza catheter was placed in the stab wound, and the empyema cavity was irrigated with 1:12,000 solution of azochloramid. The catheter drained well, and the patient showed gradual improvement, and for five days prior to his discharge on Nov. 4, 1940, the temperature was normal.

After returning home the patient developed a cough producing large quantities of thick yellow sputum. His fever returned, and he was readmitted to the hospital on Jan. 11, 1941, nine weeks after his previous discharge. At this time the laboratory work was as follows: Blood: hemoglobin 78 per cent; R.B.C. 4,390,000; W.B.C. 9,350, small lymphocytes 19 per cent, polynuclear neutrophiles 81 per cent. Urine: alkaline reaction, specific gravity 1.014, albumin and sugar negative, microscopic examination large amount of amorphous phosphate, but otherwise negative. Smears of the sputum showed a large number of pus cells, but no organisms were demonstrated. He received thirteen injections of glucose and alcohol in six days. At this time he showed definite improvement, and was discharged from the hospital. After returning home he continued to improve, and made a rapid gain in weight. For the past year he has been back at his job in the cotton mill and is working regularly and feeling well.

Case 4—J. W. S., a twenty-eight year old clerk, was admitted to the McCall Hospital Feb. 27, 1941, from a neighboring community with a history of having been ill for five weeks following influenza. He developed a severe pain in the right chest, and a cough producing large quantities of sputum. During this time he lost fifteen to twenty pounds in weight, and complained of a marked asthenia. Laboratory work: Blood: hemoglobin 50 per cent; R.B.C. 4,000,000; W.B.C. 8,200, small lymphocytes 14 per cent, polynuclear neutrophiles 86 per cent. Urine: acid reaction, specific gravity 1.012, albumin 1 plus, sugar negative, occasional pus cell, microscopic examination negative. Smears of the sputum

showed many spirilla and fusiform bacilli. A diagnosis of lung abscess was made and the patient received twenty-five injections of alcohol and glucose in fourteen days. After five days the patient showed improvement and the temperature and pulse rate returned to normal. Suddenly the production of sputum stopped entirely. Forty-eight hours following this the temperature made a sharp rise to the level of 102 to 103. It was our opinion that the opening of the abscess was plugged. This plug was loosened spontaneously, and the patient coughed up about six ounces of sputum in a period of one to two hours. Following this the temperature dropped sharply to normal, the sputum was markedly reduced in amount, and the patient developed a ravenous appetite, and a general feeling of well-being. After fourteen days' hospitalization he was discharged, and on returning home continued to improve rapidly. Unfortunately, this patient left owing the hospital some money, and consequently it has been difficult to follow and observe him during the past year. Several weeks ago, however, he stopped by the hospital one night and stated that he had been working regularly and feeling well.

Conclusions

1. In each of the four patients treated by us, alcohol in glucose intravenously has apparently had dramatic therapeutic effect.
2. The mode of action of the treatment is obscure, but possibly the elimination of alcohol through the lung is a factor.
3. We are encouraged to believe this agent will be a useful one in the treatment of lung abscess—especially for the practitioner in a small community where chest surgery is not available, or in cases where surgery is not indicated.
4. The whole problem will require further study before its definite therapeutic value can be established.

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WAR CONFERENCE

The medical, surgical and industrial hygiene experts who are so ably safeguarding the well-being of more than 20 million industrial workers have agreed to pool their knowledge and exchange their experiences regarding the many new and complex problems of today's wartime production. For this purpose their organizations—

The American Association of Industrial Physicians and Surgeons,

The American Industrial Hygiene Association, and

The National Conference of Governmental Hygienists—are combining their annual meetings in a four-day "WAR CONFERENCE" at Rochester, New York, May 24-27, 1943.

OBLITERATION OF CHRONIC EMPYEMA CAVITIES

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An empyema thoracis is chronic when the process of obliteration of the cavity has stopped or become so slow as to be negligible.

This brief discussion of the problems of chronic empyema, and the problem of chronic empyema is the problem of the obliteration of the cavity, will be limited to the nontuberculous variety. Pure tuberculous and mixed tuberculous empyemas have their own peculiar features.

The patient with acute empyema and not too much disease elsewhere generally gets well with a little help. Most of the factors which are responsible, singly or in combination, for the passage of an acute empyema into the chronic stage are well known. They are:

1. *Too early removal of the drainage tube.* It is amazing that textbooks still talk about the amount of drainage or the bacteriology of the drainage as criteria for the time to remove a tube rather than the one reliable criterion which is the demonstration, preferably with opaque oil and x-ray examination, that the pleural space is completely obliterated.

2. *Non-dependent drainage.* While many acute empyemas, particularly in children, do heal when drainage has not been strictly dependent, it is significant that most chronic empyemas have to be re-drained in a more advantageous position.

3. *Inadequacy of drainage due to too small a tube, too short a tube, or too long a tube.* The relatively small caliber of the catheters used in intercostal type drainage is one of the chief disadvantages of the method in dealing with pus rich in fibrin. Too short a tube is apt to result in sealing over of the pleural opening as obliteration of the costophrenic sinus progresses and to deceive the surgeon as to the actual state of affairs. Too long a tube may defeat an otherwise dependent chest wall opening.

4. *Foreign body in the cavity, usually tube or other drainage material.* The lowly safety pin is still an excellent safeguard. The role of dead bone, acting as a foreign body, has not been stressed in the literature. In one of the cases to be presented, two small bony sequestra, each lying in a pocket in the chest wall, may have been an important factor in the chronicity (some fifteen years) of the empyema.

5. *Unsuspected tuberculosis, actinomycosis, or neoplasm.* In addition to the usual bacteriological examinations of the pus from an empyema, routine biopsy of the parietal pleura at the time of drainage will sometimes save later embarrassment.

6. *Single or multiple, large, bronchial fistulae in the presence of adequate external drainage or single or multiple, small, bronchial fistulae in the presence of inadequate external drainage.* The large fistulae usually result from communication of a pulmonary abscess with the pleural space and may make some type of chest wall collapse inevitable. On the other hand, small fistulae occur frequently in the course of empyemas and tend to heal spontaneously unless inadequate external drainage maintains them as a form of internal drainage. In this latter group, then, inadequate external drainage is still the prime factor.

7. *Bronchial obstruction with atelectasis and inability of the lung to re-expand.* When, in the course of acute empyema, the lung does not re-expand in the absence of other satisfactory explanation, bronchoscopy is advisable.

There is another factor coming into play in the encouragement of chronic empyema, the exact significance of which is not yet determinable. Burford and Blades¹ have recently called attention to the bizarre behavior of empyemas occurring in the course of pneumonia treated with the sulfonamide drugs and I have had a small confirmatory experience. While the sulfonamides have undoubtedly reduced the incidence of the complication of empyema, when empyema does occur it is apt to present unusual difficulties in management. The pus may thicken up slowly and there is a strong tendency to single or multiple, loculated pockets.



Figure 1.

Apparatus for maintaining continuous suction. Source of suction is ordinary water tap. To the right is a long glass tube containing mercury. One of its two side arms is di-

rected to the suction device, the other to the patient. A smaller glass tube extends through the rubber stopper and its depth determines the maximum negative pressure which can be applied to the empyema cavity. The long length of tubing gives the patient great freedom of movement.

There is no need to dwell upon the symptoms and diagnosis of chronic empyema with persistent external drainage. It might be well to stress the difficulty sometimes encountered in differentiating between lung abscess and encapsulated empyema draining through a bronchial fistula. Occasionally only exploration will make the determination.

Whatever the mechanism of its development, chronic empyema is characterized by thickening and some rigidity of the pleurae, both visceral and parietal, the degree depending upon time, type of infecting organism or organisms, and certain imponderable factors. The actual thickening is characteristically greater in the parietal than in the visceral layer and one is sometimes surprised to go through a parietal layer five to six millimeters thick and find the lung almost normal to palpation. That is why, apparently, adequate redrainage of chronic empyema cavities is not infrequently all that is necessary. Given a chance the lung re-expands to obliterate the cavity. Unfortunately, however, one still encounters visceral pleurae of such rigid, fibrotic character that adequate drainage alone, or with the addition of irrigations with Dakin's solution, will not suffice.

In the past, various attacks have been made upon the problem of obliteration of the residual space, all predicated upon the assumption that adequate drainage, and this usually means redrainage, has failed.

Estlander devised his thoracoplasty to collapse the chest wall against the lung, bringing parietal and visceral pleurae together. Schede went further and removed the parietal pleura as well, letting the soft tissues of the extracostal chest wall fall into the cavity. Fowler and Delorme introduced the operation of decortication (stripping the constricting visceral pleura from the lung) to permit re-expansion to meet an intact chest wall. Ransohoff modified this principle with his gridiron incisions through the visceral pleura. Many surgeons have contributed later refinements, notably in the use of pedicled flaps and grafts. Employment of the principle of surgical decortication has not given satisfactory results and the extensive Schede procedure carries a shocking mortality and great deformity. There has been a trend in recent years toward individually designed extrapleural thoracoplasty in the treatment of cavities of considerable size, with application of a modified Schede procedure to any residual space not completely obliterated.

It is at once apparent that any safe method of bringing the lung out to the chest wall without extensive operative procedures would be desirable. It is also apparent that chronic empyema should be cured. The scoliosis, debilitation from chronic suppuration, amyloidosis, bouts of fever, and progressive thickening of the pleurae, any or all of which may characterize the disease, demand effective treatment. The danger of

an empyema draining through a bronchus makes adequate external drainage mandatory, even an emergency procedure. The use of gentle negative pressures, or suction, is no new principle in chest surgery and, for a long time, has been employed in the treatment of acute empyema. It is only within the past four years that suction has been recognized as a potent agent in obliterating chronic empyema cavities. Bernou, Canonne, and Marécaux² reported using as much as fifty centimeters of mercury negative pressure in what seems to be the earliest record, while Neville,³ unaware of the French work, reported using up to thirty-five centimeters of mercury in a case in 1939. Brewer and I began work along the same line in 1938 at the University of Michigan, treating both tuberculous and nontuberculous chronic empyemas.

Apparently, in addition to the mechanical effect of an actual pull tending to approximate the pleurae, there is an additional effect of increasing vascularity of the relatively avascular, fibrotic pleura, thereby encouraging the resorption and thinning of the fibrous coat and the production of young granulation tissue to aid in adherence of the two surfaces. While the thinning effect has not been proved histologically and is merely a deduction, the increased vascularity is readily demonstrable in that a smooth, glistening, rigid pleura which will not bleed when vigorously rubbed can be made to ooze freely by the too sudden application of high negative pressure. Continuous suction may, therefore, constitute a sort of decortication, along with its other, purely mechanical effect. The use of continuous suction requires a great deal of supervision but it can be successfully carried out in the home to avoid long periods of hospitalization.

While there are no available series of cases of statistical significance, the method has certainly saved a good many patients from extensive, collapsing operations. There have been no serious ill effects to my knowledge and the only undesirable reaction has been an occasional transient fever with the initiation of suction. This was severe enough in one case in my experience to necessitate discontinuance for

awhile but a later attempt was successful.

The existence of bronchial fistula is the only real contraindication. Sometimes, small fistulae may be effectively treated.

The illustration shows the apparatus used. Any source of continuous suction may be utilized. The siphon principle may be used but there is much labor and grief associated, due to the development of small leaks. Continuous negative pressure such as is available in many operating rooms and some hospital rooms is excellent but difficult to provide. There is a pump with a vacuum tank which does not require continuous operation but it is expensive. The use of running water, as illustrated, has seemed the best solution for home treatment. Between the patient and the source of suction, a trap is interposed to collect drainage and a mercury valve to regulate the maximum amount of suction applied to the patient, regardless of fluctuation in the strength of the source. If the drainage tube does not fit so tightly in the chest wall as to make an airtight joint, leakage can be prevented by some such scheme as that illustrated, with the tube passing through a piece of sponge rubber and a layer of rubber dam (the latter in contact with the skin), all of which is sealed to the chest wall with adhesive tape and, sometimes, collodion.

Slides will illustrate the results of the method in two chronic cases without fistulae. The third case represents a chronic empyema with multiple fistulae, bronchiectasis, and hemorrhage which was obliterated with a three stage thoracoplasty.

Case 1. A thirteen year old boy had pneumonia, complicated by a left empyema, about one year before. The empyema was drained by resection of a portion of the ninth rib posteriorly. Drainage had continued and, when Dr. Aven saw the patient in October, 1940, there was a narrow sinus leading to a chronic cavity seven inches in vertical and three inches in anteroposterior extent. There had been no bronchial fistula. Redrainage was carried out through the bed of the tenth rib in the midaxillary line. After five days' hospitalization, suction was applied at home on November 11. After three weeks, during which a maximum of six inches of mercury negative pressure was applied, the pleural space was obliterated but a sinus through the chest wall was still present. A month after removal of suction, the empyema was found to have recurred, the previously agglutinated walls having been partially separated by reaccumulation of exudate. To permit the patient to

complete his school year, trial of adequate open drainage was given. A little diminution in size occurred but the situation was entirely stable at the time of another iodized oil filling in April, 1941. After school was out in June, suction was reapplied over a period of four weeks with complete obliteration of the empyema. The patient is well ten months later. He still has a mild, well compensated scoliosis.

Case 2. A seventeen year old boy had had a right empyema for fourteen years, following pneumonia. The empyema had been drained and, with failure to heal, redrained several times. There had been no evidence of a bronchial fistula. Dr. Aven saw the patient in July, 1941, and demonstrated a chronic empyema cavity with iodized oil. There was a very narrow chest wall sinus. Redrainage was carried out on Aug. 8, 1941. A rigid, immobile, visceral pleura was found, along with two small bony sequestra lying in recesses in the anterior chest wall near the sites of previous operations. After four days in the hospital, suction was applied at home over a period of four weeks. After two weeks, the capacity of the space had been reduced to 10 cc. and, after two more weeks, the space was obliterated. A film on Feb. 28, 1942, showed little pleural thickening, and he is well seven months after termination of treatment.

Case 3. The patient, a twenty-seven year old white male, presented symptoms of a lung abscess at the age of eight years but improved and remained fairly well except for a little cough and sputum until the age of twenty-two when he was admitted to a hospital acutely with a left lower lobe abscess. X-ray films showed a small metallic screw in the region of the abscess. The screw was removed through a bronchoscope but the abscess later required surgical drainage. Purulent sputum and purulent drainage through the chest wall continued and he was admitted as a clinic patient to the St. Joseph's Infirmary on Dec. 17, 1940. A chronic cavity with multiple bronchial fistulae and a narrow chest wall sinus were present. This cavity was redrained and packed. Intermittent bleeding from its wall began and it was further opened and packed. After it had become apparent that the space was not growing smaller, that the purulent drainage was continuing, and that gross hemorrhages were endangering the life of the patient, a thoracoplasty was carried out in May, June, and July, 1941. Two posterior stages and an anterior stage were done to include a short length of the third rib, long lengths of the next five ribs, and short lengths of the ninth and tenth ribs. The bleeding ceased, the space was obliterated, and the bronchial fistulae finally closed in December, 1941. The patient still has some bronchiectasis, in the left lower lobe but he now has only one-half to one ounce of sputum.

The first two cases would have required extensive collapse of the chest wall to obliterate their cavities without the aid of suction. The third case represents the type of empyema in which suction is not applicable and collapse must be resorted to.

One must conclude that a trial of continuous suction is indicated in any chronic,

nontuberculous empyema, without bronchial fistulae, before surgery other than adequate drainage is undertaken.

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DISCUSSION ON PAPERS OF DR. CARL C. AVEN, DRs. ROBERT F. NORTON, JOHN T. MCCALL, JR., AND DR. ROBERT C. MAJOR

Dr. C. M. Sharp (Alto): It is always a pleasure to take part in the discussion of any diseases relating to the chest.

I am very sorry that Dr. Aven was not able to be here and read his paper. I am sure that it covered all the aspects of bronchiectasis adequately. Since the paper was not delivered at the meeting it will not be open for discussion but I understand that it will be published in the State Journal and I suggest that anyone interested in this phase of medicine read it.

Dr. Norton has certainly presented a novel and interesting discussion on lung abscess. I feel, however, that if alcohol was the etiologic factor in bringing about the cure of lung abscess an individual would be able to obtain a higher blood concentration of alcohol by mouth than by the small amount that is administered by Dr. Norton by vein. I would like to suggest that the intravenous glucose which is being used as a vehicle may possibly have something to do with Dr. Norton's observations.

Dr. Norton, at least, has a new method. Unfortunately, as he has stated, most of the literature is written in Russian and as yet I am unable to read Russian. I hope that he will continue this work in the use of intravenous alcohol in conjunction with glucose in the treatment of lung abscess, since the three cases he presented could hardly be considered an adequate sample of what one might expect from a large group of cases. I hope that there will be some solution to the problem because of all the conditions that we have to treat in pulmonary diseases, lung abscess is one of the most difficult factors. I believe that we can safely state, however, that 50 per cent of the cases of lung abscess will heal spontaneously. At least that is our observations at the Sanatorium.

I would like to reserve my judgment on this treatment until more cases are reported.

Dr. Major discussed a subject in which I have been interested for a number of years; that is, the obliteration of empyema cavities, particularly tuberculous empyema. At Saranac Lake in 1936 I began to observe the effect of forcibly re-expanding lungs which had developed empyema as a complication to artificial pneumothorax; doing this because we feel certain that a better thoracoplasty can be performed on a patient who has a lung re-expanded rather than a collapsed lung with markedly thickened-pleura. When we began to forcibly re-expand we felt in each case that we were preparing the patient for a thoracoplasty. There were eighteen cases in our series and in fourteen of the eighteen cases we successfully re-expanded persistently

collapsed lungs following tuberculous empyema. Tuberculous empyema is a condition which is usually a complication of artificial pneumothorax and the ultimate prognosis of tuberculous empyema without the obliteration of the pleural space is poor and fully as serious as tuberculosis of the parenchyma of the lung itself. Fortunately in only two cases that were completely re-expanded was thoracoplasty required.

The method used was to attach a 50 cc. syringe by means of a piece of rubber tubing to a two-way valve and attach this to the needle and forcibly pull the air out of the pleural space with the 50 cc. syringe. We withdrew as much air along with fluid as the patient could possibly tolerate.

Another method that we have used lately is something new in the re-expansion of lungs which are persistently collapsed. We place two needles in the thorax, one in the upper portion and another in the lower portion and irrigate the pneumothorax space with pure oxygen, a procedure known as oxygen lavage. The oxygen is so rapidly absorbed that over a period of a few days an extremely high negative pressure is built up within the pleural space. We have tried this procedure in six cases and in four cases have obtained a complete re-expansion of the lung.

I want to thank the essayists for the papers presented and I enjoyed them very much. My only regret is that Dr. Aven was not able to deliver his excellent paper on bronchiectasis.

Dr. W. P. Harbin, Jr. (Rome): I am familiar with the work that Dr. Norton has been doing in the treatment of lung abscess with alcohol and glucose.

About one and one-half years ago I examined a 28-year-old man who had a small area of chronic lung infection. After a month, the area became larger and suppurated. He was treated with glucose and alcohol according to the technic Dr. Norton outlined and he improved. After about three months the abscess cavity disappeared and the area of infection was very small. However, after another month the same thing happened again. The second time he was treated again with alcohol and glucose but did not get any better.

This patient has had chronic pneumonitis with recurrent abscess formation and suppuration. He has not had a typical lung abscess, and for this reason his response to this type of treatment does not mean very much except that improvement was noted at the time the first abscess formation was present.

Dr. H. C. Sauls (Atlanta): I regret very much that Dr. Aven wasn't here to present his paper on bronchiectasis; and Dr. Bunce has asked me to make a few remarks on bronchiectasis. Bronchiectasis is a much more prevalent condition than either of the two subjects we have had. It is frequently a contributing factor in the production of lung abscess and empyema. Bronchiectasis is an insidious disease with a progressive course and one whose results are very harmful and may be fatal. In the production of bronchiectasis there are three factors at work: First, there is a weakening of the bronchial walls, usually from infection within the bronchus. As a result of this we have a degeneration of the coats of the bronchus and a reduction of the

normal resiliency of the bronchial tubes. Second, there is frequently within the bronchus a distending force. This may be produced by frequent coughing, foreign bodies in the bronchus or a tumor in the bronchus or pressure around the hilus of the lung. As a result of these conditions, there is distention and weakening of the bronchial tubes. Third, we may have a pulling or traction on the bronchus as a result of fibrosis or mediastinal or pleural adhesions preventing the normal elasticity and proper drainage of the bronchial tubes.

Any of the above etiologic factors may develop at any time in life. Bronchiectasis is frequently seen in early life in the acute form. However, the chronic form is the more disabling type and the one most often encountered. Any part of the lung may be involved, but the lower left lobe is involved more often. It is thought that pressure from the heart or within the mediastinum, and the fact that the left bronchus is given off at a more acute angle than the right may be the reason for this lobe being involved more often. The amount of sputum and the character of the sputum varies with the location of this condition. Drainage from lesions in the upper lobes is much better than that in the lower lobes. There is less sputum and less coughing and less dyspnea in patients in upper lobe involvement than in lower lobe involvement.

The early recognition of this condition and the institution of early treatment, which consists in removing as far as possible the etiologic factors; namely, removal of foreign bodies or bronchial tumors, instituting proper postural drainage and the use of sulfonamide drugs in certain cases, will lessen the severity of this disease. By so alleviating the condition of bronchiectasis, the frequency of lung abscess and chronic empyema may be reduced.

In regard to Dr. Norton's treatment of lung abscess, I am like Dr. Sharp, I will welcome anything that will help a patient and not hurt him. I have had no experience with alcohol in the treatment of this condition.

These are difficult cases and should be recognized as early as possible. The location of the abscess should be definitely established as quickly as possible and posture to effect the best drainage of the area involved should be instituted. Another very important point is to keep the patient in such a position continuously and for a sufficient length of time to permit complete drainage and eradication of the infection. With this, sulfonamide therapy is helpful. Cases that do not respond to this treatment, may later have to come to surgery. But postural drainage and medical treatment should be given sufficient trial in all cases before resorting to surgery.

Captain Phillips (Camp Croft): I'd just like to cite two cases of acute empyema that I have had opportunity to treat at Camp Croft, South Carolina.

One was a student at Clemson College who was sent in with an obviously correct diagnosis of acute empyema of the left chest in which there was a good three-fourths collapse of the left lung. On repeated tests it was proven by both smear and culture that the infection was streptococcus viridans. The patient was given

massive doses of sulfanilamide but was literally purple, actually purple. Three aspirations were done. Five weeks later the patient went back to his home. Two weeks later, he went to Clemson College. Six months later I had a card from the patient that he was now entirely well and playing tennis whenever he felt like it. That was without open drainage, just chemotherapy.

Another case was a soldier at Camp Croft who developed empyema. Two weeks after onset numerous aspirations were done and completely sterile fluid was aspirated. Two weeks later 1200 cc. of hemolytic streptococcal fluid were aspirated. A closed catheter drainage was instituted and sulfathiazole was given in massive doses. He eventually returned to duty in ten weeks without open drainage.

The average patient in my experience who has had open drainage has been returned to civilian or military duty in an average of six months. I believe, gentlemen, that you should consider that we have an agent now which is very definite and specific in combating acute empyema. In the Army we are using chemotherapy with sulfonamide compounds.

Dr. J. E. Porter (Savannah): Soon after the World War there was a meeting at the Academy of Medicine in New York and the discussion was on the lessons we had learned in acute empyema during the World War. Acute empyema being the etiologic factor in chronic empyema, will explain if not justify my mentioning acute empyema at this time. Men from various parts of the country that had had experience in the military forces gave papers that evening. At the end, the summary was drawn and expressed as follows:

In acute empyema, make an early diagnosis, aspirate as long as the pus will come through a needle, then the pleura has become adherent to the viscera so there is a cavity that will not allow the lung to collapse. When that time is reached, remove a rib. Insert tube drainage and the patient will recover. Operate early.

Following that paper, there was a series of more than 100 patients treated at Ellis Island in New York with this method. Not a death or chronic empyema occurred in any of that series. It was reported by Dr. E. B. H. Anderson in the *Journal of the American College of Physicians* in 1926.

Dr. Robert F. Norton (Rome): I want to thank Dr. Sharp, Dr. Sauls, and Dr. Harbin for their very fair and helpful discussion of this paper. I would like to emphasize the fact that this is a preliminary report, and that certainly more work must be done before its clinical value can be definitely determined. It is quite true that some cases of lung abscess do clear up spontaneously. However, I think it is reasonable to believe that in the cases reported intravenous alcohol-glucose solution did have some specific value. These cases were all chronic abscesses in which postural drainage, sulfonamide, and various other types of treatment had been tried with no success, and they all showed prompt, some even dramatic, improvement after glucose-alcohol injections.

"CALL THE DOCTOR"

JOSEPH KRAFKA, JR., M.D.

Augusta

No phrase in literature has the dramatic appeal innate in the three words "Call the Doctor." Ten million American mothers rest their anxiety on that phrase. Ten million aged pioneers retain a certain tranquility in knowledge that their call will bring immediate assistance. One hundred million of us rest our faith in that phrase. But how many of us realize that in answer to our call we will be attended by a man equipped with the latest and best method of diagnosis and treatment available through a world wide system of ethics that makes every new discovery common professional property? We must know, too, that the ethics of his profession demand that the social aspects of our contact will never be divulged; that the nature of our illness and its moral implication will never become a subject of public record nor private gossip, and that our financial status will not be advertised abroad.

State Medicine

A certain group of philanthropic philanthropers insist that the current system is radically wrong. They base their argument for social revolt on the stone age logic that the poor have lost their inherent right to "call the doctor" because they cannot pay. This argument is not only fallacious but vicious as well. No one who is sick can be denied the right of medical attention. This is a principle written into the code of Hippocrates and subscribed to and defended by the medical profession. It has a broader application among doctors than the "sermon on the mount" has among shopkeepers in the extension of credits to the poor.

What substitute panacea for human ills is advocated by the "cuneiform scribblers"? Simply stated, they say that the Federal Government should take over the medical profession as a whole, and with it the right to diagnose disease, prescribe treatment and "cure" every ailing citizen, according to specific direction.

What is your responsibility and interest in this matter? Since it seems to be primarily an economic problem we may first

take a look at "the bill" and to whom the account is rendered. In 1935-36, according to the figures released by the National Resources Planning Board, the medical bill was \$2,200,000,000 or a little less than 4 per cent of the total national income. At the same time $1\frac{1}{2}$ per cent of the national income was spent for state income and other personal taxes. If the Federal Government is to finance a complete medical service, your taxes must be increased the additional 4 per cent. If you are among the chronically ill, you make money for yourself; if you are well, industrious and thrifty, you must forego paying church dues, private philanthropies and charities (4 per cent) in order to maintain your own standard of living.

Let's take a look at your private interest in the whole problem. The only practical basis on which this may be reviewed is that of the cause of disease. Disease is produced by two distinct types of factors, recognized by all physicians. Certain extrinsic or external conditions produce disease. Again, certain diseases have their origin in inherent or intrinsic causes. Among the first or external causes, everyone will promptly agree that the agents are either biologic or living, such as the bacteria, the protozoa, the worms, and the viruses or that they are physicochemical agents such as poisons, fire, and trauma.

Among the diseases caused by intrinsic factors are some three hundred inherited conditions including cancer, epilepsy, diabetes, certain types of paralysis and blindness.

To make our classification complete we must of course recognize the many diseases of mixed causes; that is, those due to an inherent tendency upon which is grafted the action of extrinsic factors, as in tuberculosis. We shall consider some of the more specific diseases in detail.

In the matter of disease caused by such extrinsic agents as the bacteria, protozoa, helminthes and viruses, the medical profession and the various public health agencies have long recognized the public responsibility, and have met the problem by subsidy of the city, county, state and federal health boards. That this was a rational

program is shown by the decrease in the number of cases of typhoid, malaria, diphtheria, smallpox, yellow fever, etc. Major research on fundamental problems has been one of the outstanding contributions of the United States Public Health Service. Cooperative research with the privately endowed boards such as the Rockefeller Foundation has led to principles of control that could never have been undertaken by private physicians. The recent war on the venereal diseases could never have been carried into the field of open discussion except under the prerogative of a federal agency, because dissemination of information dealing with sex problems was outlawed.

Federal quarantine in such diseases as poliomyelitis is also rational, since it involves legislative control of interstate traffic, a principle recognized years ago by the farmers of Virginia in taking the law into their own hands in control of the passage of tick-infested cattle through their state.

There has been little or no conflict between private medicine and these various public health agencies in either the distribution of information as public health education, or in the actual administration of immunizing sera, public school examinations, therapeutic canteens, etc. And the cost of such activities has been cheerfully subscribed to by the public and practitioners alike. Thirty years ago such activities were discussed under the title of "State Medicine" by Dean Geddings of the University of Georgia School of Medicine. Today we would agree that this is still the province of "State Medicine."

But what is your concern with disease that has its origin in the physicochemical agents? The first great group of these diseases is that growing out of industry. It includes such conditions as anthracosis, silicosis, lead poisoning, caisson disease, aniline dye poisoning, etc., growing out of the particular nature of the conditions to which workers are subjected. Are we, through taxation, to be held responsible for the diseases of industry while the corporations, large and small, continue to profit on these medical risks? The answer of

course is no. The rational solution to the problem has already been met by the Workmen's Compensation Act, which places a premium on the safeguards demanded by factory and mine inspection, and assures the worker of fair care when disease does occur.

A second great group of diseases arises out of our present traffic problem. Am I to be held responsible and made to pay for your hospitalization following an automobile accident which has arisen out of your own folly of drunken, reckless driving? Are you entitled to free hospitalization because some ignorant or irresponsible person forces you off of the road and wrecks your car? Here again a more direct approach to the problem is at hand in traffic regulation of a positive type. Fix individual responsibility for injury as well as for property damage. I am not called upon to buy you a new car? Why should I be made to pay for your medical treatment?

The same rational position is seen in the case of injury due to fire. You do not object to paying a premium for fire coverage on your property. Why then, under "State Medicine," should I be made to chip in my quota of tax to pay for your treatment if you are burned? Again, if a farmer freezes his ears in Minnesota because he won't wear ear muffs, why should I be made to pay for the services of a cosmetic surgeon to repair the injury? Yet all this is innate in the general proposition of subsidized federal medicine.

We may now pass to a consideration of the second great group of diseases, those caused by intrinsic or inherited factors. And I ask, is it any business of mine that you have a defective chromosomal setup which makes you different from me? I had no part in either denying you the right to be born, nor in yours to beget offspring marked with your defect, either knowingly or unknowingly. We are far from the Hitlerian legislation in this respect. Why then, under "State Medicine," should I be held responsible, by taxation, for the daily dose of insulin, for your injections of mare's serum, for your ephedrine inhalants, your vitamins ABCDEGK2, for your liver

extract, for your audiophones, your straight jacket? No, that is the responsibility of the immediate genetic strain to which you belong; namely, your parents, your uncles and aunts, your sibs. As a scientist I can assume responsibility for you and yours only on two grounds: that of forewarning you of the possibilities of inherent disease in your prospective offspring, and in a further extension of research to determine the quantitative values of extrinsic and intrinsic factors in disease of mixed causes. As a physician I am duty bound to extend my research to a better understanding of all disease.

With this review of public interest in private medical problems it is clear that the present relation between the physician and his patient has had a normal, rational evolution. Why then the revolution?

The whole situation arises out of the present paternal attitude of the Federal Government in its attempt to raise the standard of living of the indigent. That a serious situation does exist is not to be denied. The problem however is one of economics. Rural communities under the present setup have difficulty in keeping up with the payment of interest on mortgages and can hardly be expected to support a costly medical service. Those of us, however, who know practice in all of its phases, including the specialties, clinics, outpatient departments and research, are aware of the fact that many of the refinements of diagnosis and treatment may be met with ingenuity under the most sordid home conditions. The "Horse and Buggy Doctor's" experiences are not unique. I have treated kidney colic in a father and pneumonia in the son, with both patients in the same bed.

Up to this point the reader may be led to believe that this thesis is purely a defense of the present organization of medical practice, and an appeal for its continuance. A certain feature, however, presents itself upon which a definite legislative program may be based. There is no argument against the statement that the medical care of the indigent must be improved. This is a tenet which has invoked many plans, instituted by the medical profession and lay organizations alike. I propose to develop a plan

which has certain merits not commonly recognized. Simply stated I propose a 10 per cent tax on all proprietary drugs, the income from which will be used to extend medical service to the indigent. This proposal has two virtues: it finances a definite program out of the income of an industry in which the profits have been notoriously great and it should as a result lead to a decline in the practice of self-medication.

Theoretically, the medical profession has no quarrel with the individual who takes patent medicines. But the individual is himself paying an excessive cost in that no diagnosis of his condition is written on the label of the bottle which he buys. Self diagnosis is a dangerous practice. It frequently leads to chronic ailment, and many times to death. Even the simple "belly-ache," fainting spell or slight hemorrhage may be the only outward signs of a dangerous condition.

You may be certain that any such proposal as herein made will be met by a powerful paid lobby against it by the drug interests. But by way of warning, under "State Medicine" it is certain that with the proposed regimentation of doctors, we will also see a regimentation of the drug trade. Incidentally, you can add another 4 per cent tax to cover the cost of such a Federal Board for the Manufacture and Dispensing of State Medicines. Add still another 4 per cent for the FBH, or Federal Board of Hospitalization. Now your income tax approaches that of the English-landed gentry. And yet we have only a theoretical opinion that medicine will be practiced more scientifically and more effectively than it is at the present time. Our experience with housing, relief, home loans, TVA, labor organization, old-age pensions, and agricultural subsidy should make us hesitant in any revolutionary program that changes the relation between patient and doctor when the cry goes up "Call the Doctor."

The International College of Surgeons will hold its Fourth International Assembly June 14, 15, 16, at the Waldorf Astoria Hotel, New York City. Eminent surgeons in government military and civilian executive offices approved of the meeting of the assembly.

CYTOLOGIC DEMONSTRATION OF GLYCOGEN IN ADIPOSE TISSUE DURING RECOVERY FEEDING

EDGAR SHANKS, JR.

Augusta

Until relatively recently the adipose tissue of the body has been thought to have the purely passive role of a fat-storage depot that fluctuated with variations in its nutritional blood supply. The extensive experiments of Tuerkischer and Wertheimer (1941)¹ have shown this view to be inaccurate. Other investigators (Wassermann, 1929; Hausberger, 1937; Schoenheimer, 1937; Wells, 1940)^{2, 3, 4, 5} had previously recorded evidence that substantiated and further ascribed to adipose tissue the role of a regulated organ closely integrated with the metabolism of carbohydrates as well as fat. The following studies demonstrate what is believed to be a significant technic in showing the deposition of glycogen in adipose tissue cells during recovery feeding, and thus prove the participation of fat tissue cells in carbohydrate metabolism:

Procedure

Laboratory white rats which had previously been fed on a diet consisting of 22.5 per cent proteins, 5.5 per cent fats, and 50.25 per cent carbohydrates were fasted until they lost from 15 to 20 per cent of their body weight (3-4 days)*. Samples of interscapular, abdominal wall, intestinal mesentery, perirenal and interarticular fat were removed from ether anesthetized animals prior to recovery feeding and at intervals of 6, 12, 18, 24, 30, and 48 hours. Other animals were killed at these and later time intervals after recovery feeding had begun and the foregoing samples of fat were obtained together with sections of liver. Bone marrow smears were made at the same time. The tissues were fixed from 1 to 3 hours in absolute ethyl alcohol, and stained with Delafield's hematoxylin⁶ for 5

*The animals were allowed to partake of water at will during the period of starvation.

From the Department of Microanatomy, University of Georgia School of Medicine.

Acknowledgment is made to Drs. Jos. Krafka and C. R. Noback for their encouragement and help in this work; and to Dr. L. L. Bowles for making the photomicrographs.

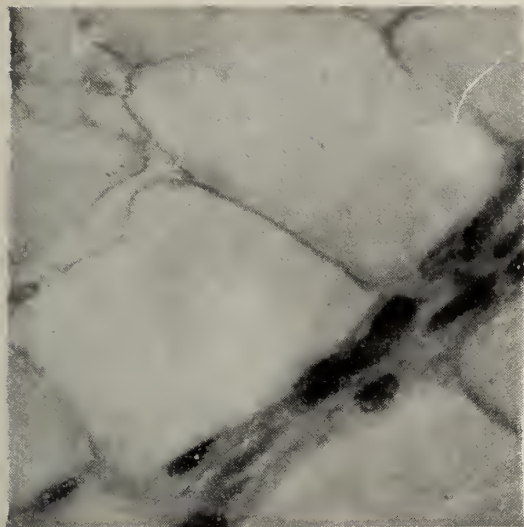


Fig. 1.
Photomicrograph of fat cells after four days of starvation and prior to recovery feeding. Note the absence of glycogen granules.

minutes prior to staining with Best's carmine.⁷

Results

Having been fixed in alcohol, the lipid content of the adipose tissue cells was completely dissolved, and the cells presented the typical "signet-ring" outline. The brilliant carmine color of the glycogen granules was plainly visible intracellularly. Their largest accumulation seemed to be along the inner surface of the cell wall and grouped around the nucleus when the latter was discernible. No glycogen granules were specifically demonstrable outside the peripheral cytoplasmic ring of adipose cells in sections cut as thin as 3 microns.

Though there was no evidence of glycogen in the fatty tissue of well fed rats and starved rats (4 days), glycogen granules were plainly evident in peripheral fat 6 hours after recovery feeding had begun. The deposition of the granules was especially heavy in the brown multilocular or interscapular fat which, in some instances, presented a glycogen stain equally as heavy as in the liver sections from the same animal. At 12 hours there was a slight increase in glycogen over the 6-hour sections. At 24 hours the maximum deposition of glycogen granules occurred with the aforementioned diet. This condition continued in some animals well after the close of the

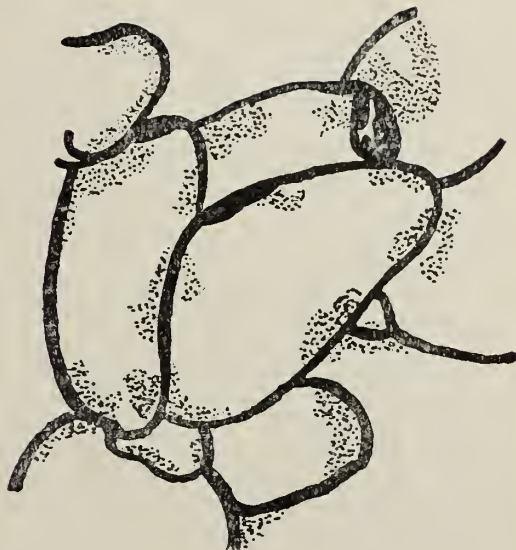


Fig. 2.
Camera lucida drawing showing the deposition of glycogen granules in fat cells after 48 hours of recovery feeding.

second day of recovery feeding. From thence onward the quantity of the granules within the fat cells declined. By the close of the fifth day granules of glycogen were not observable in any of the fatty tissues of the animals. The single fat cells of the stroma of myeloid tissue possessed glycogen granules similar to those in peripheral fat cells. This was also the case with the cells forming interarticular adipose pads.

Discussion

While there has been some dissension,^{8, 9, 10} the Best carmine stain is regarded by the majority of investigators as specific for the demonstration of glycogen granules. However, as controls, my sections were subjected to the digestive action of saliva before being stained by the Best carmine method. These sections showed no glycogen granules. Other sections were subjected to the iodine test (Bensley¹¹). This test as well proved positive for glycogen and negative when the glycogen was digested by saliva. The Feulgen-Bauer stain¹² for glycogen duplicated the above results in each instance.

The demonstration of glycogen granules in fat cells only after prolonged starvation followed by recovery feeding, and the transient nature of their deposition within such cells, suggest both glycogenesis and glycogenolysis are intermediary metabolic processes that take place only within the cell boundary.

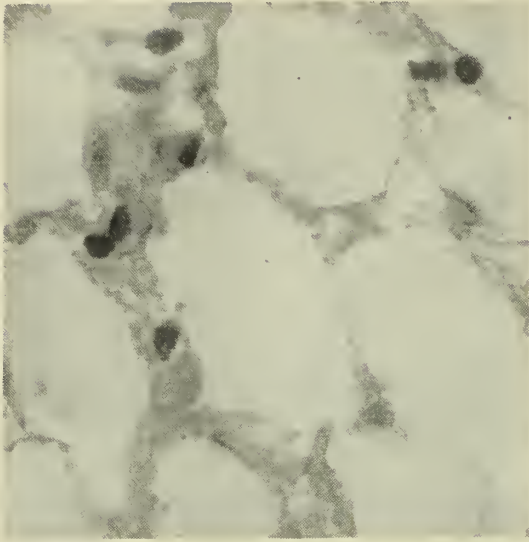


Fig. 3.

Photomicrograph of fat cells after 48 hours of recovery feeding. Glycogen granules are abundantly deposited near the cells' walls.

Fats and carbohydrates that were "tagged" with deuterium by Schoenheimer⁴ gave conclusive chemical evidence that a number of intermediary metabolic processes occur within the fat cell at the same time. By this method he demonstrated that mice synthesize fats from carbohydrates when on a normal diet.

Wassermann² suggested that fatty tissue is an organ possessing definite functions in its own right. Wells⁵ pointed out the unusual activity of fatty tissue in disease, remarking that lipomas in many instances maintain their original size even though the patient is suffering from extreme malnutrition and has lost the majority of his stored fats. The multilocular or pigmented fat, observed in both embryonic and adult fatty deposits,^{13, 14, 15} is believed by some investigators¹⁶ to possess glandular qualities.

All of the available literature on the subject of adipose tissue points toward the need for further study to clarify this truly neglected subject.

Conclusions

1. Glycogen is demonstrable cytologically as well as chemically in adipose tissue cells of animals on a recovery diet after prolonged starvation.

2. The glycogen granules are observable only as transient inclusions of the fat

cells and are not found intercellularly.

3. The rapidity with which the glycogen appears in the peripheral fat after recovery feeding begins and the transient nature of its presence, indicate that this type of tissue is more than a passive organ.

4. The constituent ratio between proteins, fats, and carbohydrates not only governs the quantitative deposition of glycogen in adipose tissue but also the rapidity of its deposition.

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JOURNAL HAILS SUCCESS OF THE CONGRESS ON MEDICAL EDUCATION AND LICENSURE

Outlining the highlights of the statements made by high officials of government agencies and the Army and Navy before the thirty-ninth Annual Congress on Medical Education and Licensure, held in Chicago February 15-16 under the sponsorship of the Council on Medical Education and Hospitals of the American Medical Association, *The Journal* of the Association says in its February 27 issue that the Congress "was one of the most successful ever assembled. Indeed the results establish the necessity of the assembly in wartime. . . .

"American medicine has performed remarkably in meeting the demands placed on it for the war effort. The officials of the government and officers of the armed forces who have been charged with the task of providing for medical care have been sympathetic to the needs of medical education and of civilian medical practice. The accomplishment of the Council on Medical Education and Hospitals in providing at this congress statements from authoritative sources as to present plans and changes contemplated for the future in medical education and in medical practice merits the appreciation particularly of medical educators, since it stabilizes definitely a situation full in recent months of apprehension and doubts."

THE PRESIDENT'S PAGE

DOCTORS FOR DEFENSE

Doctors do all they can for Flag and Land,
 Obedient to every call they stand.
 Curing the sick, helping the poor,
 Teaching Health every day, to be sure,
 Ousting disease from child and man.
 Remembering from their aim never to
 swerve;
 Spiritual stamina they grow; material as-
 sets conserve.



Mrs. Leonard Rush Massengale, Lumpkin

Forgetting self is the Doctor's aim,
 Obedience to Hippocrates' Oath they claim,
 Remembering personal and National
 Morale.
 Defending Our Country in every way.
 Encouraging better living from day to day.
 Fighting the enemy—man or disease,
 Entering the fight on Lands and Seas,
 Never forgetting Victory is our Goal.
 So, Americans rely on Doctors, heart and
 soul,
 Eternal Freedom for Your Country and
 mine.

—Mrs. Leonard Rush Massengale.

DOCTORS' DAY

Devoting their lives to family and fellow
 man,
 Ousting disease on every hand.
 Curing the sick, helping the poor,
 Teaching man his pain to endure.
 Obeying Hippocrates' Oath they learn,
 Remembering the less fortunate never to
 spurn.
 Surely, Doctors deserve man's gratitude!
 Doing their part for Our Flag and Land,
 All our Doctors in this—united stand.
 Your Doctor and mine are exceptionally
 grand!

—Mrs. Leonard Rush Massengale.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

MARCH, 1943

SAY THAT ONLY A FEW SPECIES OF SPIDERS ARE TO BE FEARED

Although most people kill spiders on sight, there are in reality only a few species that are to be feared. Raymond W. Thorp and Weldon D. Woodson, Los Angeles, point out in the March issue of *Hygeia, The Health Magazine*. They even have an actual utilitarian value. For example, they are helping us fight the war, their webs being employed for cross hairs on telescopic gun and bomb sights, range finders and optical instruments.

In defense of spiders, the authors say, it also may be said that for food they prey on insects, many of which are injurious to plants and man.

"Scientific investigation," Thorp and Woodson declare, "reveals that the public errs in being shy of all spiders, and that the naturalist, on the other hand, makes a mistake in lending the impression that no spider should be feared. It will be helpful, therefore, to throw the searchlight on those few spiders with a bite that may result in considerable pain to man, and particularly on one genus whose members have brought great suffering to humankind on every continent.

"The so-called 'banana' spider has often been singled out as a creature with a bite that may induce pain in man. It is a tropical species which appears in the United States hidden in bunches of bananas. . . . The creature is not related to the large, hairy spiders of Southwestern United States termed 'tarantulas.' It is instead one of the giant crab spiders and belongs to the family *Heteropodidae*. . . . The clinical findings indicate that the bite of this spider may be sharply painful but not dangerous. . . .

"The tarantulas of the United States have earned an awesome reputation. Scientists and laymen for many years held the opinion that such huge spiders surely possessed venom with a potency dangerous to man. This was negatively answered when human beings in several instances induced the creatures to bite them, and the resultant pain proved to be equal to about that of two or three bee stings. . . .

"Within the United States sixteen species of trapdoor spiders have been discovered, and eight of these are recorded exclusively from California. . . . Naturalists marvel at their ability in excavating a burrow, lining it with water-proof silk and closing it with a hinged door. Scattered, unverified reports through the years mention

much suffering, and even death, resulting from their bite. Scientific investigation nevertheless has discounted this conclusion. Symptoms resulting from their bite under normal conditions will be local, and they as a class cannot be considered as greatly harmful to man.

"Most widely distributed of the spiders dangerous to man are those which belong to the genus *Latrodectus*. They are to be found in each of the continents, and for more than a century well founded reports have been recorded concerning the suffering from their bites. In the United States there has been reported in California *Latrodectus geometricus*, and in each of the forty-eight states *Latrodectus mactans*. This last is the ill-famed black widow spider. The symptoms from its bite strikingly resemble those resulting from the bite of its prototypes throughout the world.

"A cause for bewilderment to many people has been the fact that some victims of the bite of the black widow experience no ill effects, others only mild effects and still others agonizing pain. Most significant reason for this is that the striated [striped] muscles which surround the poison glands of the black widow spider function only when she chooses. She may thus inject her fangs into a human being and deposit no venom, or again, may secrete the maximum contents of her poison sacs.

"The banana spider, various species of tarantulas and their relatives, the trapdoor spider . . . have all caused varying degrees of injury to man. Only these and spiders of the genus *Latrodectus*, of which the black widow is a heralded member, need to be feared, and one may, as the naturalists have entreated, delight in studying the habits of all other specimens. . . ."

FIND AGE DISTRIBUTION OF PHYSICIANS IN COMMUNITY IMPORTANT IN WARTIME

Findings from a survey in Maryland and the District of Columbia on the number of patients seen in one week by physicians in private practice "serve to emphasize the need for careful consideration of the age distribution of the physicians of a community when preparing to establish the number that can be released for military service," Antonio Ciocco, Sc.D., and Isidore Altman, Bethesda, Md., declare in *The Journal of the American Medical Association* for February 13. The Study was made for the Procurement and Assignment Service for Physicians, Dentists and Veterinarians of the War Manpower Commission.

The survey brought out that the withdrawal of men below 45 years of age from a population has not the same effect as withdrawing men above that age. The general practitioners under 45 years of age were found to have a patient load of 25 to 50 per cent greater than that of other men between 45 and 64 years of age and more than twice as large as that of general practitioners 65 years and older.



CRAWFORD WILLIAMSON LONG, M. D.
Jefferson, Ga., 1815-1878

A NEW HONOR TO THE MEMORY OF CRAWFORD LONG

With the coming of the 30th of March, this year, anesthesia begins the second century of its existence, Dr. Crawford W. Long having administered the first anesthetic in a surgical operation March 30th, 1842, at Jefferson, Georgia.

It is gratifying to have a new honor given the memory of Dr. Long at this time. A benefactor who does not wish his name known at present, has commissioned different capable artists to paint portraits of distinguished American physicians and other scientists to be hung in the office of the Surgeon-General of the Army, in Washington, D. C. Crawford Long has been selected as one of the number, and his likeness painted by Richard Lahey, of the Corcoran School of Art in Washington, an artist well qualified to do it. The portrait, which is presented here, was made from a photograph of Long exhibited in the Congressional Library, and shows him in the prime of life, with a more pleasing pointed beard, and not with the long square hirsute appendage in which he often is seen.

WOMAN'S AUXILIARY

President—Mrs. J. Lon King, 223 Buford Place, Macon.

President-Elect—Mrs. Wm. Bruce Schaefer, Toccoa.

First Vice-President—Mrs. Harry M. Kandel, 432 Abercorn Street, Savannah.

Second Vice-President — Mrs. Walter G. Elliott, Cuthbert.

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: OFFICERS 1942-43

Recording Secretary—Mrs. J. C. Metts, 303 Anderson Avenue, Savannah.

Parliamentarian—Mrs. S. T. R. Revell, Louisville.

Treasurer—Mrs. Lucius N. Todd, Rural Delivery No. 2, Augusta.

Historian—Mrs. Jack R. McMichael, Quitman.

Corresponding Secretary—Mrs. Wallace L. Bazemore, 127 Beverly Place, Macon.

Doctors' Aide Corps

The First Doctors' Aide Corps has been organized by the Woman's Auxiliary to the Fulton County Medical Society under the presidency of Mrs. Edgar H. Greene. The headquarters and principal laboratory of the Blood Type Registry and the permanent exhibit rooms are at the new Academy of Medicine, 875 West Peachtree Street, N. E., Atlanta. The Doctors' Aide Corps is composed of doctors' wives who, following the completion of a series of health education and civilian defense lectures, work in one of four specialized avenues of endeavor. They are:

1. Information and Speakers' Bureau. The service that acquaints the public with the activities of the Corps through short talks to organizations, press notices and radio programs. Aides must qualify as speakers. All information on health subjects and all talks must be approved by the Advisory Committee of the Fulton County Medical Society to the Auxiliary.

2. Health Films. The service that secures and shows films on health subjects to organizations in Fulton County. This department develops the continuity for occasion, film and lecture and has proved so popular that it has attracted an audience of over 4,000 since Oct. 22, 1942. These persons have been so satisfied with the interestingly presented pictures and stories on disease, accident prevention and nutrition that they have advertised the service widely. Now it has scheduled appointments weeks in advance.

3. Cooperative Services. This service links the activities of the Corps with the volunteer agencies: Red Cross, Office of Civilian Defense and American Women's Voluntary Services, in first aid, nutrition, home nursing, nurses' aides and registration of citizens.

4. The Blood Type Registry. This is the particular War Emergency Service of the Doctors' Aide Corps and is under the direct supervision of the Advisory and Laboratory committees of the Fulton County Medical Society. This service has established three laboratories for the determining and registering of the blood types of individuals of Metropolitan Atlanta. The first and headquarters laboratory was opened Oct. 21, 1942, at the Academy of Medicine. The equipment was furnished by the doctors and

their wives augmented by help from the State Board of Health and the Office of Civilian Defense. The second laboratory was established Dec. 13, 1942, by the Buckhead Lions Club under the supervision of a representative of the Medical Society. The third laboratory opened March 1, 1943, will be staffed by especially trained Aides of southwest Fulton County, augmented when necessary by assistants from headquarters laboratory. The physical equipment of this third laboratory is being made possible by civic groups in that part of the county being served. A very careful preparation of personnel for these three laboratories in reception work, filing, typing and laboratory technic has been necessary to maintain the efficiency expected from a registry of blood types. In case of disaster the zone and precinct method of filing will enable hospitals and treatment centers to obtain numbers of donors in the shortest period of time. Making this reduction in delays where transfusions are necessary will save lives. The technicians are trained in the technic of blood typing and must do practice work for a period of time before they are allowed to perform the tests. Strict laboratory technic is maintained at all times. The records on Feb. 1, 1943, showed 1,523 individuals typed with duplicate card in all hospitals in greater Atlanta.

The Auxiliary of the Southern Medical Association, Nov. 11, 12, 1942, in Richmond, Va., voted approval of the Doctors' Aide Corps plan as originated by the Auxiliary to the Fulton County Medical Society. The Southern Medical Association Auxiliary voted \$50 to be used to print information concerning the Corps for distribution to all southern auxiliaries as a guide to them in setting up their own corps. The office of the American Medical Association, Chicago, has offered to print and distribute all requested information throughout the United States. The opinion of both the Southern and American Medical Association boards when passing on the plan was that it was very ambitious and that it had features that could apply to both small and large organizations.

It might be interesting to note that of the 205 eligible Auxiliary members, 143 registered for the Doctors' Aide Course, 143 graduated; 132 volunteered for work; 15 Doctors' Aides changed

residence since Nov. 1942; 119 Doctors' Aides now working regularly; 100 hours work minimum per year to wear insignia; 4 hours work is the average now per Aide per week.

Activities of the Doctors' Aide Corps Inspected by Surgeon-General Thomas Parran, U.S.P.H.S.

At the Academy of Medicine February 3, Dr. Thomas Parran, Surgeon-General United States Public Health Service, accepted the invitation extended him by Mrs. Edgar H. Greene, president of the Auxiliary to the Fulton County Medical Society, to inspect the Blood Type Registry. Hostesses for the occasion were Mrs. Greene, Mrs. W. M. Dunn, president-elect of the Auxiliary; Mrs. H. C. Sauls, chairman of the Blood Type Registry; and Mrs. J. N. Brawner, Sr., Director of the Doctors' Aide Corps. Present, also, to welcome the distinguished visitor were the officers and members of the Board of Trustees of the Fulton County Medical Society and the members of the Advisory and Laboratory Committee of the Medical Society.

Dr. Parran seemed very interested in his tour of the Blood Type Registry and in the material in the permanent exhibit room. He evidenced amazement that such great activity existed here in the South and wished to know if other cities in the section had followed Atlanta's example in establishing a registry of blood types for its citizens. A troop of boy scouts who were having their blood typed at the time of the inspection were delighted with Dr. Parran's friendliness.

The efficiency exhibited in handling the crowd in the laboratory and in the methods of bleeding and reading and recording gained Dr. Parran's approval. He considered the zone and precinct filing of great value to prevent delays where numbers of donors were needed in a short period of time.

The exhibits on cancer, tuberculosis and venereal diseases were complimented by the visitor and a promise of additional material for exhibition was made. He pointed out the usefulness of certain charts and graphs. Mrs. Bruce Logue, chairman of the Nutrition Center, showed what she had done toward establishing a nutrition library and discussed with Dr. Parran valuable additions to her exhibits.

From the beginning of the tour of inspection through each room along the way Dr. Parran stopped to admire the building. He thought the memorial chandeliers were beautiful and said that all the details of architecture and furnishing blended harmoniously to make the Academy of Medicine very attractive.

The Doctors' Aide Corps feels great encouragement that its program was recognized and complimented by Dr. Parran, Surgeon-General of the United States Public Health Service.

Resolutions

It is with sad hearts that we pause to pay

tribute to the sacred memory of one of our members, Mrs. Floyd W. McRae, Sr., who passed away on Dec. 28, 1942.

She is survived by two sons, Dr. Floyd W. McRae, Jr., a prominent Atlanta surgeon, Kenneth McRae, of Detroit; and several grandchildren.

Mrs. McRae was formerly Fannie Collier. She was born in Atlanta and spent all of her life here. She was the widow of one of Atlanta's outstanding surgeons.

Mrs. McRae served as temporary chairman at the first meeting of the Fulton County Medical Auxiliary on Nov. 20, 1923, and was elected its first president at that meeting. Her interest in the work of the Auxiliary continued through the years.

Aside from her medical Auxiliary work Mrs. McRae had the honor of being the President of the Home of Incurables for thirty years, an office she held up to the time of her death. This work was a beautiful example of her fine Christian spirit, and untiring devotion to this group of life's unfortunate ones.

She left many happy memories to her friends and associates, and we who knew her best feel her every thought expressed —

"For me to live is Christ
For me to die is gain."

Passing out of the shadows
Into Eternal day.
Why do we call it dying
This sweet going away.

Since in His wisdom the Creator has seen fit to recall her from the responsibilities of this life, *be it resolved* that this token of our love and respect be spread upon the official minutes of our Auxiliary. That we record a deep sense of loss occasioned by her going, mingled with reverent gratitude for the conspicuous and loyal service she rendered to our Fulton County Medical Auxiliary.

Resolved further that a copy of these resolutions be sent to her bereaved family.

Respectfully submitted,
MOLLY BOLAND
NELL BRAWNER
SALLIE MAY BENSON, *Chairman.*

Habersham County

The Woman's Auxiliary to the Habersham County Medical Society met recently at the home of Dr. and Mrs. T. H. Brabson in Cornelia. The following officers were elected: Mrs. D. H. Garrison, president; Mrs. T. H. Brabson, vice-president; and Mrs. O. N. Harden, secretary-treasurer. It was announced that members are doing much Red Cross work and health projects in connection with the P.-T. A. Due to the fact that their doctor husbands have gone into the

(Continued on page 89)

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

YOUR HEALTH DEPARTMENT

GUY G. LUNSFORD, M.D.

Atlanta

Georgia Department of Public Health

Doctor, are you acquainted with your public health department?

"Oh yes," you say, "our health officer is a member of the county medical society and attends the meetings regularly. Last year he was president and is now secretary."

Well, he wouldn't be a real health officer unless he had become acquainted with every doctor in his county immediately after his arrival. Membership in the local medical society is to be taken for granted. To have won the confidence and regard of his fellow members so that he is honored by election to an office is fine. But knowing your health officer is not knowing your health department.

How many times have you visited the department? Do you know other members of the department? Probably you do know the public health nurse, for she has more than likely been to your office to ask how she might be of service to some of your patients. Maybe you know the public health engineer or sanitarian. He possibly belongs to your service club, lodge, or Sunday School class. But all of this does not mean that you know your health department, what it is doing, and how. If you could afford to spend a few days at the health department, making the rounds with different members of the staff, you would probably be surprised at its many functions, and the different ways in which the department is active in disease prevention. A brief stay with members of the staff would show you that quarantine of cases of infectious diseases and giving immunization "shots" are only minor functions. You would even decide that operating venereal disease clinics does not constitute the sum total of public health work.

Take the control of communicable diseases for instance. Certainly most of these are to be isolated, and often contacts have to be quarantined. If the disease is one for which there is a vaccine or other immunization agent, the contacts and possible contacts should be immunized. But, alas, all too often such an agent is not available. Even if there is one, there are other measures to be instituted. Elimination of the cause of the disease is most important. The carrier or "missed" case, the insanitary condition, the polluted water supply, the diseased dairy herd, the faulty pasteurizer, are some of the things that must be found and controlled or corrected. This quite often calls for the services of a medical "Sherlock Holmes," a Charlie

Chan" engineer, a public health nurse like the District Attorney's "Miss Miller," and Sherlock Holmes' "Doctor Watson" in a laboratory, all working together to do this. It is certain that you would find it quite interesting to follow these public health workers as they go about their detective work to locate the source of the infection, and "run down" other contacts with the source. You would be intrigued by the various methods used, and the clues "run down" for the different diseases, whether typhoid fever, diphtheria, tuberculosis, syphilis, or one of the others. And don't forget, Doctor, that the effectiveness of this program depends upon your reporting these diseases to your health officer promptly.

Then there are the non-communicable yet preventable diseases to be dealt with, and prevented. Among these are: the deficiency diseases such as rickets, pellagra, and other nutritional disorders; and the insect borne diseases. Also to be considered are industrial hazards, accidents, and many other similar problems. Far from the least of these is the protection of the health and welfare of the expectant mother and her offspring.

Only a few of the interesting and important things to be learned from a visit to your health department can be listed here. A look at the spot maps in the department would keep you informed about the health status in the county. Charts and graphs would show the progress being made in correcting unhealthy conditions.

Inquiry might disclose the fact that the department has ways of assisting you that you have not been using. You may not only call on the commissioner of health for consultation in cases of communicable diseases, but in other conditions as indicated above. The public health nurse can help you with many of your cases, not in bedside care, but in many other ways. Your health department can supply you with containers for sending specimens to the laboratory, and can often obtain the specimens for you. You can find in your health department any of the biologics that are supplied by the State Department of Public Health: 1 per cent silver nitrate ampules, blank birth certificates and other blank forms, pamphlets, and so on. Your health department can take care of some of the details of getting the applications of your tuberculosis cases for admission to the Sanatorium at Alto, your cancer cases' applications for treatment at State-aid cancer clinics, or attention for crippled children from the Welfare Department.

Now, Doctor, that you have become acquainted with your local health department, we should like for you to know your State Health Department. In knowing your local health department you have not only come to appreciate what it is

doing to improve health conditions in your county, but also to know how it can be of more assistance to you in your practice. It is for this purpose that we want you to know your State Health Department. It is the earnest desire and aim of each member of your State Health Department to render every possible assistance to the people of Georgia through the physicians of the State. Each member of the staff would like to know you personally so that he or she could explain in what ways we can be of help.

Your State Health Department realizes that its success depends largely on your knowledge of its policies and programs. Therefore, at the request of its director, the Medical Association of Georgia appointed a special committee, the Advisory Committee to the State Board of Health. No new program or change of policy is instituted until this committee is called together and the program or policy freely discussed, and approved, amended, or disapproved by this committee. Its actions are, of course, reported to the Association at its annual meeting, and published in the JOURNAL, so that each policy and program of your State Health Department is the policy and program of organized medicine.

Of course, you know that we have laboratories in Atlanta, Albany, and Waycross, especially to serve *you*, but you may not be taking advantage of all the services offered by these laboratories. Suppose you visit one of these and see what other services are offered, or if you cannot come in person, write for information. And if you are in a county not having a local health department, you may secure biologics, specimen containers, silver nitrate ampuls, drugs for the treatment of syphilis and gonorrhea, and so on, directly from the laboratory.

The Tuberculosis Control Division is often improving and enlarging its services to your patients through you. Our program for cancer control is at your service. If you or your local health officer wishes it, there are epidemiologists to assist in the diagnosis and control of preventable diseases. Experts on the control of typhus fever, Rocky Mountain spotted fever, tularemia, and other less frequent diseases are at your service. If your town or city is planning to install or enlarge its water or sewer system, we can give you expert advice that may result in a better plant and a saving in money. If you plan building, enlarging, or altering your hospital, you will find that we may have some ideas or plans that will be of value.

On behalf of *your* commissioner of health and *your* State Health Department, you are here and now extended an invitation to become better acquainted with your health departments, and to learn more about how they can be of service to you.

WOMAN'S AUXILIARY

(Continued from page 87)

service several members have moved away. Paid-up members are Mrs. D. H. Garrison, Mrs. J. B. Jackson, both of Clarkesville; Mrs. H. E. Crow, of Alto; Mrs. C. T. Hardman, of Tugalo; Mrs. T. H. Brabson, Mrs. O. N. Harden, Mrs. D. E. Carter and Mrs. E. H. Lamb, all of Cornelia. A social hour followed the meeting, during which Mrs. Brabson served refreshments for the members of both medical society and auxiliary.

Barrow County

The Woman's Auxiliary to the Barrow County Medical Society met recently with the president, Mrs. C. B. Almand, at her home in Winder. It was reported that obligations to the State had been met and members voted to assume the same for the ensuing year. Sponsoring the cancer drive in the county, rolling bandages, sponsoring blood donors, showing health films, securing *Hygeia* subscriptions and promoting health education were included in the program of activities for 1943. It was announced that through assistance of the Auxiliary a Barrow County medical student has secured a loan from the Student Loan Fund of the Woman's Auxiliary to the Medical Association of Georgia. By using this fund he will obligate himself to practice in Georgia for a specific period of time. The president appointed Mrs. S. T. Ross chairman of *Hygeia*, Health Education, and Doctors' Day, and Mrs. Ernest R. Harris chairman of Press and Publicity. The Auxiliary has been honored by appointment of two of its members, Mrs. W. T. Randolph, state chairman of Research in Romance of Medicine, and Mrs. C. B. Almand captain of the Women's Field Army for Control of Cancer. A social hour followed the meeting.

Richmond County

The Woman's Auxiliary to the Richmond County Medical Society sponsored a talk and demonstration on keeping physically fit at the health education building of the Y. W. C. A. in Augusta recently. Dr. Claire Henderson, commissioner of public health, talked on health and keeping fit and Mrs. Henri Price, health education secretary, had charge of the demonstrations. Miss Florence Collins, USO director, and Miss Mary Webb, group work secretary of the Y. W.

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

The American College of Chest Physicians cancelled its 1943 meeting. The Board of Regents recommend that state and district chapters meet jointly with state medical associations when possible.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1942-3

President—Frieda Grefe, R.N., Savannah

First Vice-President—Sister Cornile, Atlanta

Second Vice-President—Mrs. Mae M. Jones, Milledgeville.

Secretary—Mrs. Esther Watts, Columbus

Treasurer—Jane Van De Vrede, Atlanta.

Executive Secretary—Durice Dickerson, R.N., Headquarters, 131 Forrest Ave., N. E., Atlanta; Tel. WA. 8911

Chairman, State Committee on American Red Cross Nursing Service—Jane Van De Vrede, Atlanta

President—Georgia League of Nursing Education, Ruth Babin, Atlanta

President, Georgia State Organization of Public Health Nursing—Vera Mingledorff, Griffin.

Chairman, Private Duty Section, G.S.N.A.—Mrs. Mildred Pryse, Albany

NURSING A WAR NECESSITY

JANE VAN DEVREDE, R.N., *Chairman*
State Committee on Red Cross Nursing Service
Atlanta

The recruitment of nurses for service under the American Red Cross has been conducted by members of the organized nursing profession appointed in committees by a national committee composed of nurses and government officials.

Thousands of nurses have served on state and local committees and in every state in the union, without remuneration. Under this leadership annual meetings have been held at the times of meeting of the state nurses' associations.

Nurses have been recommended to serve in local disasters, Red Cross roll calls and other organizations. To the present this organization, informal as it has been, has served nursing activities well and recruited all enrolled Red Cross nurses.

Now, however, it has become necessary to enroll all nursing manpower for the needs of the war and home fronts, and all available nursing personnel should be used for professional service. To carry out a greatly expanded program of recruitment for war and civilian health needs, the American Red Cross is calling upon the entire chapter organization and asking professional committees to cooperate in rather than take major responsibility for the recruitment of nurses and nurses' aides.

An active chapter committee is being organized in the larger cities and a campaign engaged upon to secure enough nurses for the military program and a definite organization for manning the civilian hospitals also. It is considered that the shortage of nursepower is the most serious shortage of the entire war program. Nurses who have left the field of nursing are being sought and given refresher courses and appointments to duty in civilian hospitals.

Since a high percentage of nurses marry physicians, the appeal should be strong to them to reorganize home responsibilities to allow them to serve in local hospitals, thus releasing personnel which is free to volunteer for wider service.

Every registered nurse has been requested to

secure and fill out a card listing her availability and mail it to the District nursing headquarters or deputy nurse.

The Chairman of the Atlanta Chapter Committee is Mrs. Robert Woodruff. She or her associate, Mrs. Glenville Giddings, will assist any nurse who contacts them for information on how to serve, how to enroll.

If you are a nurse, you can respond; if you know a nurse, get her to respond. Every available one is needed.

COMMUNICATIONS

LETTER FROM A 1931 GRADUATE OF EMORY UNIVERSITY
 SCHOOL OF MEDICINE

Editor,

The Journal of the Medical Association of Georgia,
 Atlanta.

I have seen some of the literature which has been printed about "the strange policies and practices of Emory," but so far everything has been a condemnation. Doesn't Emory do any good? Editorial pages usually print both sides, if there are two sides.

It's not my intention to write an answer, since I am not an efficient but plain Mr. John Q. Neither do I have the facts or statistics. On the other hand, maybe it doesn't even call for an answer.

Some of the boys managed to get by the freshman class. How did they do it? The impression has gotten around that there is something wrong with the ones that passed.

Most of us down here are at work and we all hope we can soon be of more help.

The above is a personal opinion and any likeness of any present, past or future official commitment is purely coincidental.

Yours truly,
 KELLS BOLAND, Captain, M.C.,
 Army of the United States.

Camp Livingston, La., Feb. 10, 1943.

LETTER FROM A 1916 GRADUATE OF EMORY UNIVERSITY
 SCHOOL OF MEDICINE

Editor,

Journal of the Medical Association of Georgia,
 Atlanta.

I have been reading the articles in THE JOURNAL entitled "The Strange Policies and Practices of Emory University School of Medicine," and, being an alumnus

of Emory, and my son, Howard Hilt Hammett, Jr., being a 1941 graduate of Emory, as well as one of the University of Michigan boys mentioned in one of the editorials, I feel justified in writing you.

In 1935, when my son Hilt graduated from Little Emory at Oxford, I heard it was at times difficult to persuade Emory's medical school to accept the sons of physicians as students, since such procedure might interfere with the school's new philosophy regarding medical education and medical practice. For this reason I made a trip to Emory and had guts enough to make such statement to Registrar J. C. Stipe. He proceeded to walk around the room like a lion in a cage and indicated that if I did not have confidence in Emory that I should send my boy to another medical school. Have been sorry many times that I did not, but since it is all over I am glad he went to Emory. However, I have wondered if my conversation with Stipe had something to do with the Michigan trip Hilt made. Anyway, the boy "tucked his tail" and went to Michigan to learn about the brachial plexus, which he was conditioned on. As a result he learned more in six weeks at Michigan than he would or could have learned at Emory in ten years with their methods of teaching. Thanks to Butch and Stipe for this trip.

Recently I talked to other boys in the 1941 medical class at Emory. These boys stated they never knew where they stood, that the only students who knew their standing were those in the ten highest or in the ten lowest of the class groups. My son was in the ten lowest group twice during his freshman year; one of his classmates was in the low group three times during the year; and another classmate (a doctor's son) was away from school eleven days for an appendectomy and was also advised or made to make the trip to Michigan.

When I learned that my boy was conditioned in anatomy I made a trip to Atlanta to talk to the Number One Executioner of Emory. I located him on his Emory campus farm, which consisted of thirteen stalks of corn and two tomato vines, which looked good. He is a better farmer than teacher. I was greeted with no courtesy whatever; he did not know my son by name and would not talk about the grades he had made. From the Emory campus farm we proceeded to look for Dr. Russell Oppenheimer; located him at Grady Hospital, colored division, where we were advised verbally and in writing to make the Michigan trip, with statements that if the boy made good passing grades at Michigan he would *not* have to take another examination at Emory to enter the sophomore medical class.

My boy made a B plus grade at Michigan, and was notified to this effect by the University of Michigan. We felt much better and thought the matter was settled for him to enter the sophomore medical class at Emory. However, I was *not* notified by Emory regarding the Michigan grade. His classmates were notified by Emory that they would *not* be re-examined and that they were ready for the sophomore class. A few days before school was to begin a classmate of my boy called and said he had talked to the Butch and that my boy would have to take another examination. Another trip was made by me to see Oppenheimer; by this time I was a Butch — a real executioner — but no one but Almighty

God and myself knew that the proposed examination might mean this. After a lengthy conversation between Oppenheimer and the Butch over the phone (I was sitting in an adjoining room all this time), I was told in short order that my boy could enter the sophomore class without re-examination. Oppenheimer said all of this was a matter of form, but I say "nice form" when you already have the h — scared out of you.

The morning the Number Two Executioner — the Op — advised me that it would not be necessary for Hilt to take the examination, he was later called into the office of the Number One Executioner — the Butch — and asked if he realized what he was doing by refusing to take this examination, that he was about to become "a martyr to the cause" that was going to make it hard on the freshmen in the future. Seemingly the time has about arrived for some one of the "executioners" to explain to the unfortunate boys that did not reach the sophomore class, to their parents and to the general public, the meaning of "the cause."

Now, if you don't think all of this is nerve-racking, try it. I actually believe my boy would have been a complete failure in life. As it is now, he has the makings of a good doctor. Please check his record: he was an honor graduate of LaGrange High School and was voted the best all around boy for his four-year period. Scholarship to Little Emory and graduated there around fifth in his class. Graduated in 1937 at Big Emory with A.B. degree. Took internship at Grady Hospital, Atlanta; and is now in the medical corps of the Army, in foreign service, keeping the Japs off the Butch at Emory. I do not say he is smart, but he is above the average; but I do say no medical student at Emory will ever mourn when the Butch is placed side-by-side with "Dooley."

There is not a boy that graduated in Hilt's class at Emory that will say he got a "square deal." For this reason I could not advise any boy or girl to go to Emory University. If the faculty of Emory University School of Medicine will tolerate such policies and practices in its Department of Anatomy, they would do the same thing in other departments; therefore Emory is a closed chapter for me.

If this letter will help Emory and its students, please use it in THE JOURNAL.

Faternally yours,

H. H. HAMMETT, SR., M.D.

LaGrange, Ga., Feb. 4, 1943.

BOOK REVIEW

The Mind and Its Disorders, by James N. Brawner, M.D., Medical Superintendent, Brawner's Sanitarium, Smyrna, Georgia. Cloth. Price \$3.50. pp. 228. Atlanta, Ga., Walter W. Brown Pub. Co.

The author states that this book was written at the request of many friends among physicians. The reviewer likes to feel that he is among those friends eagerly awaiting Dr. Brawner's book and consequently read it to see how much he put of himself and his sincere pioneering in psychiatry into it. Undue modesty, some misdirected influence, or most likely the arrangement of contents masks that which his friends were seeking.

"That dour old systematist, Herbert Spencer, with his notions of substance," and consciousness, must have at least made a feeble semi-rotation (counter clockwise) when put to bed with Freud in the back of the book. It is as difficult to feel that Spencer could have looked upon Freud as corroborating his views about mind, as it would be to feel that Freud's chief aim was a correlation of Psychiatry and Internal Medicine.

Back in the first decade of this 20th century a bare-footed school boy is attacked by a little yellow dog that had traveled down a dusty road three miles after starting this unexplained aimless trip by biting a mule and a cow; a broad-hipped woman with a flair for broadcloth clothes, furs, and a lap dog, gets a snap on the hand; Dr. Brawner is the one source of mental assurance.* Multiply these incidents many, many times and see this assurance reaching into all the mental perplexities and you can see the friend of humanity from whom his legions of friends wanted a book.

To the friends and physicians in general who wish a gentle, pleasing lesson in Psychiatry on a sound medico-psychologic basis, *Mind and Its Disorders* is what they need but what we wanted was a more intimate touch.

H. D. ALLEN, JR., M.D.

*After studying at the Pasteur Institute in Paris, Dr. Brawner introduced Pasteur's Antirabies treatment into Georgia in 1900. He continued this work to 1909 when in a most magnanimous gesture he relinquished this work to the State Board of Health. Pasteur, Pasteur Institute, and Pasteur Institute in Atlanta all escaped the indexer.

NEWS ITEMS

Dr. W. Frank Wells, Atlanta, national general grand master of the General Grand Council of Royal Arch and Master Masons, spoke before a meeting of the Louisiana Masons at New Orleans, February 10.

Dr. E. Nesbert Gleaton, Savannah, immediate past president, and Dr. J. Reid Broderick, Savannah, president of the Georgia Medical Society, were honor guests of the Society at the annual president's dinner, February 9, 1943.

The doctors of Blackshear entertained the members of the Ware County Medical Society at the Blackshear Community House, February 3.

Dr. V. P. Sydenstricker, Augusta, returned recently from England where he engaged in the study of nutrition for one year. He was sent to England by the Rockefeller Foundation to cooperate with the British Ministry of Health in a nutrition survey.

The Georgia Medical Society, Savannah, met on February 23 at the Society's Hall, 612 Drayton Street. Motion picture of Peptic Ulcer was shown.

The regular monthly meeting of the staff of Emory University Hospital was held on March 2. Dr. Herbert Alden and Dr. George Lewis made a report on the "Nutritional Survey of the Atlanta Area with special reference to 'Thiamine and Riboflavine'; Dr. C. W. Strickler, Dr. Roy R. Kracke, and Dr. J. J. Clark reported a case, "Multiple Myeloma."

The Bulletin of the Fulton County Medical Society, published on February 18, contained the following ar-

ticles: "President's Message" by Dr. George W. Fuller; "Social Health in War and Peace," Dr. Thomas A. Storey, consultant, American Social Hygiene Association; "Activities of the Doctors' Aide Corps Inspected" by Surgeon-General Thomas Parran, U. S. P. H. S. "A Visit to Crawford W. Long Memorial Hospital."

The \$500 Research Prize annually offered by the American Urological Association will not be awarded this year. The plans for the June meeting in St. Louis have been cancelled.

Dr. Charles E. Hall, Jr., announces the opening of his offices in Suite 1105 Doctors Building, Atlanta, for the practice of proctology.

Dr. Arthur F. Merrill announces his return to practice following a course in tropical diseases at the Army Medical School, Washington, D. C. His office is located at 35 Fourth Street, N. E., Atlanta.

The Bibb County Medical Society met in Ridley Hall, Macon, March 2. Capt. George S. Goldman spoke on "Psychiatry in an Infantry Training Center."

Dr. S. P. Kenyon, Dawson, has been elected county physician for Terrell.

The Surgical Association of the Atlanta and West Point Rail Road Company, Western Railway of Alabama and the Georgia Railroad will hold its Twenty-Third Annual Meeting at the Biltmore Hotel, Atlanta, March 25. Titles of addresses and names of speakers on the program follow: "President's Address," by Dr. W. H. Clark, LaGrange; "Toxic Effects of the Sulfa Drugs on the Blood," Dr. Roy R. Kracke, Professor of Pathology, Emory University; "Some Observations on Use of the Sulfa Drugs," Major E. B. Howard, M. C., U. S. Army, Venereal Division Control Officer Fourth Service Command, Atlanta; "Round Table Discussion," conducted by Dr. J. R. Garner, Chief Surgeon, Atlanta; guest speaker—Col. S. F. French, M. C., U. S. Army, Chief, Medical Division, Fourth Service Command, Atlanta; "Treatment of Ununited Fractures," Col. J. I. Sloat, M. C., U. S. Army, Chief of the Surgical Service; Capt. C. A. Waltman, M. C., U. S. Army, Lawson General Hospital, Atlanta; "Treatment of Ocular Injuries," Major Elmer A. Vorisek, M. C., U. S. Army, Chief, Eye Section, Lawson General Hospital, Atlanta. Dr. J. R. Garner, Atlanta, is chief surgeon; Dr. John P. Garner, Atlanta, assistant chief surgeon; Mrs. R. E. Cooper, Atlanta, is assistant to the chief surgeon. Officers of the Association are Dr. W. H. Clark, LaGrange, president; Dr. C. N. Wasden, Macon, vice-president (military service); Dr. K. E. Foster, College Park, vice-president pro tem; Mrs. R. E. Cooper, secretary-treasurer. Executive Board: Doctors J. R. Garner, chairman; Montague L. Boyd, Carter Smith, J. C. Blalock, John P. Garner, J. Calvin Sandison, Edgar H. Greene, R. H. Fike, Grady E. Clay, Hugh M. Lokey, all of Atlanta.

The Georgia Medical Society, Savannah, met in the Society's Hall on March 9. Dr. Max Cutler, Chicago, spoke on the "Recent Advances in the Causes, Diagnosis and Treatment of Cancer."

Col. Jesse I. Sloat, M. C., Chief, Surgical Service, Lawson General Hospital, Atlanta, spoke before a meeting of the medical and surgical staff of the Crawford W. Long Memorial Hospital on "Treatment of Ununited Fractures," illustrated with lantern slides and by a moving picture.

Dr. C. W. Harwell, Cordele, was the principal speaker before a meeting of the Cordele Kiwanis Club on February 9.

Dr. Carl C. Aven, Atlanta, spoke on "Virus Pneumonia" before a meeting of the Fifth District Nurses' Association at the Henry Grady Hotel on February 19.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, March 4. Dr. George A. Williams read a paper on "Gynecology"; Dr. Amey Chappell reported "Stillbirths and Neonatal Deaths at Grady Hospital" (statistical study of all infant deaths which occurred on the colored obstetrical service at Grady Hospital during a three year period); the discussion was led by Dr. O. H. Matthews and Dr. Guy C. Hewell.

Titles of articles published in The Bulletin of the Fulton County Medical Society, March 4, were: "President's Message," by Dr. George W. Fuller; "Vaginal Hysterectomy," Dr. Olin S. Cofer; "Recent Trends in Medical Dermatology," Dr. Herbert S. Alden.

The visiting staff of Grady Hospital, Atlanta, met on March 9. The combined white and colored pediatric staff and x-ray department gave a symposium on "Pulmonary Manifestation in Kerosene Poisoning."

Dr. S. T. R. Revell, Jr., visited his family recently at Louisville after spending several months in foreign military service.

The Medical Association of Georgia, Georgia Department of Public Health and the Associated Industries of Georgia sponsored Industrial Health Institutes at Augusta, March 11; Savannah, March 12; Atlanta, March 15; and Columbus, March 16. Titles of addresses and physicians on the program included: "Community Health Problems Affecting Industry," by Dr. T. F. Abercrombie, Atlanta; "Health Services Available to Industry in Georgia," Dr. L. M. Petrie, Atlanta; "Recent Developments in the Handling of Industrial Injuries," Dr. Lloyd Noland, Fairfield, Ala.; motion picture, "Save A Day," by the U. S. Public Health Service; "Medical Aspects of Health Program for Industry," Carl Peterson, Chicago, Council on Industrial Health, A. M. A. Dr. W. W. Battey delivered the "Address of Welcome" at Augusta; Dr. C. F. Holton at Savannah; Dr. George W. Fuller in Atlanta; and Dr. W. E. Mayher at Columbus. Dr. C. W. Roberts presided at Augusta and Savannah; Dr. R. E. Newberry in Atlanta. Local sponsors of the program were the Richmond County Medical Society, Richmond County Health Department and the Augusta Chamber of Commerce; Georgia Medical Society, Savannah-Chatham Health Department, and the Savannah Chamber of Commerce; Fulton County Medical Society, Fulton County Health Department, and Atlanta Chamber of Commerce; Muscogee County Medical Society, Columbus-Muscogee County Health Department, and the Columbus Chamber of Commerce.

Staff meeting of the Georgia Baptist Hospital, Atlanta, was held on March 16. Dr. W. E. Upchurch arranged a symposium on "Surgical Curiosities" performed at the hospital. Dr. Hulett H. Askew is secretary of the staff.

The Bibb County Medical Society met at Ridley Hall, Macon, March 16. Dr. W. W. Chrisman reported cases.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, March 18. Titles of papers on the scientific program were: "Highlights of Ophthalmology for 1942," by Dr. Grady E. Clay; "Treatment of Peptic Ulcer from a Surgical Standpoint," Dr. J. C. Blalock. Discussions were led by Dr. Ben H. Clifton and Dr. Shelley C. Davis.

Papers published in the March 18 issue of The Bulletin of the Fulton County Medical Society, Atlanta, were: "President's Message," by Dr. Geo. W. Fuller; "Red Cross and Its Broad Scope of Work," "Red Cross Blood Donor Service," "Share Your Blood with Boy Next Door," "Nurses' Aide Corps" were all contributed by Mary Carter Winter; "Fight Cancer with Knowledge," by Mrs. Murdock Equen, vice-commander, Women's Field Army for Cancer Control, State of Georgia.

COUNTIES REPORTING FOR 1943

Fulton County Medical Society

The Fulton County Medical Society announces the following officers for 1943:

President—George W. Fuller; President-Elect—Ben H. Clifton; Vice-President—McClaren Johnson; Secretary-Treasurer—Eustace A. Allen; delegates—George W. Fuller, Ben H. Clifton, W. W. Anderson, H. H. Askew, Don F. Cathcart, Eustace A. Allen, J. R. Childs, Shelley C. Davis and B. L. Shackleford; alternate delegates—Avery M. Dimmock, Geo. F. Euhanks, Jas. N. Brawner, Jr., T. F. Davenport, R. E. Newberry, Olin S. Cofer, Alton V. Hallum, Wm. H. Kiser, Jr., and Linton Smith. All officers and delegates reside in Atlanta.

Greene County Medical Society

The Greene County Medical Society announces the following officers for 1943:

President—Goodwin Gheesling, Greensboro.
Secretary-Treasurer—F. H. Killam, Greensboro.
Delegate—W. R. Richards, Greensboro.

Clayton-Fayette Counties Medical Society

The Clayton-Fayette Counties Medical Society announces the following officers for 1943:

President—J. R. Wallis, Lovejoy.
Vice-President—Y. R. Coleman, Jonesboro.
Secretary-Treasurer—T. J. Busey, Fayetteville.

Monroe County Medical Society

The Monroe County Medical Society announces the following officers for 1943:

President—W. J. Smith, Juliette.
Secretary-Treasurer—G. H. Alexander, Forsyth.

Elbert County Medical Society

The Elbert County Medical Society announces the following officers for 1943:

President—D. N. Thompson, Elberton.

Vice-President—A. C. Smith, Elberton.
 Secretary-Treasurer—A. S. Johnson, Elberton.
 Delegate—Geo. A. Ward, Elberton.
 Alternate Delegate—W. A. Johnson, Elberton.

Lamar County Medical Society

The Lamar County Medical Society announces the following officers for 1943:

President—J. A. Corry, Barnesville.
 Vice-President—D. W. Pritchett, Barnesville.
 Secretary-Treasurer—S. B. Traylor, Barnesville.
 Delegate—J. H. Jackson, Barnesville.

Taylor County Medical Society

The Taylor County Medical Society announces the following officers for 1943:

President—Lewis Beason, Butler.
 Vice-President—S. H. Bryan, Reynolds.
 Secretary-Treasurer—R. C. Montgomery Butler.
 Delegate—R. C. Montgomery, Butler.

Sumter County Medical Society

The Sumter County Medical Society announces the following officers for 1943:

President—Schley Gatewood, Americus.
 Vice-President—A. C. Primrose, Americus.
 Secretary-Treasurer—R. H. Enzor, Smithville.
 Delegate—B. T. Wise, Americus.
 Alternate Delegate—A. C. Primrose, Americus.

Gordon County Medical Society

The Gordon County Medical Society announces the following officers for 1943:

President—M. A. Acree, Calhoun.
 Vice-President—J. E. Billings, Calhoun.
 Secretary-Treasurer—R. D. Walter, Calhoun.
 Delegate—W. H. Hall, Calhoun.
 Alternate Delegate—W. R. Barnett, Calhoun.

OBITUARY

Dr. James Columbus Jenkins, Hartwell; member; University of Georgia School of Medicine, Augusta, 1897; aged 68; died on February 1, 1943, in Emory University Hospital. He was born and reared in Hart County and was one of the county's foremost citizens. Dr. Jenkins served several years as Mayor of Hartwell, and was continuously active to promote the welfare of his community. Surviving him are his widow, two daughters, Mrs. Audrey Garrard, Hartwell, and Miss Frances Jenkins, Madison; two sons, Jas. C. Jenkins, Jr., Villa Rica, and Joseph O. Jenkins, Radford, Virginia. Rev. Willard W. Cash officiated at the funeral services conducted at the Hartwell Methodist Church.

Dr. James Newton Cheney, Silver Creek; member; University of Georgia School of Medicine, Augusta, 1888; aged 77; died on January 23, 1943, at his home. He was born and reared in Cobb County. In addition to being an active and successful practitioner, he was an active business man and at times served as an officer of the following industries, Pepperell Mfg. Co., Rome Hosiery Mills, Berryton Mills and at one time president of the Briatrain Brothers Co. He was a member of the F. & A. M., and the Baptist Church. Dr. Bunyan Stephens officiated at the funeral services con-

ducted at the Chapel of Daniel & Son. Burial was in Myrtle Hill Cemetery.

Dr. Marion W. Murphy, Ringgold; member; Emory University School of Medicine, Atlanta, 1892; aged 78; died on February 25, 1943, after a long illness. He practiced medicine in Boynton, Ringgold and Rossville for many years. He was a native of Meriwether County. Dr. Murphy was president of the Bank of Ringgold, member of the Shrine, Walker County Medical Society, American Medical Association and the Boynton Methodist Church. Surviving him are one foster daughter, Mrs. Summerfield Young, Boynton; two sisters, Mrs. Charley Huey, Carrollton, and Mrs. J. H. Brittain, Atlanta. Funeral services were conducted near Boynton. Interment was in Peavine Cemetery.

Dr. Oliver O. Simpson, Norcross; Emory University School of Medicine, Emory University, 1882; aged 86; died in a private hospital in Atlanta March 4, 1943, after an extended illness. He practiced medicine in Norcross and surrounding community for many years. Served one term in the General Assembly of Georgia and was a member of the Mt. Carmel Methodist Church. Surviving him are his widow, one son, O. O. Simpson, Jr.; six daughters, Mrs. C. E. Kirkpatrick, Mrs. J. Howard Webb, Mrs. J. H. Carlisle, and Miss Lida Simpson, all of Norcross; Mrs. Charles L. Goforth, Gainesville, and Mrs. C. C. Breithwatt, Atlanta. Rev. A. C. Stratton officiated at the funeral services conducted at Mt. Carmel Methodist Church. Burial was in the churchyard.

MIRACLES OF MILITARY MEDICINE

How American medicine has met many challenging problems imposed by this global war was described by Albert Q. Maisel, war correspondent and author of "Miracles of Military Medicine," at a banquet for employees of Ciba Pharmaceutical Products, Inc., celebrating the presentation of the Army-Navy "E" to the company.

Maisel holds that American medical men now serving on many fronts are constantly developing new techniques and improving those used by their comrades-in-arms of the United Nations. At the end of the war they will translate more of these techniques into civilian practice.

Other speakers at the banquet included Brig. Gen. S. U. Marietta, commandant of Walter Reed Hospital; Rear Admiral Charles M. Oman, commandant of the Harriman, N. Y., Rehabilitation Center; Col. Harold W. Jones, librarian of the Army medical library; Pharmacist's Mate, first class, Edward Bykowski, severely wounded when his ship, the U. S. S. Vincennes, was sunk in the Battle of Savo Bay; and Wing Commander N. Timmerman, DSO, DFC, Royal Air Force.

Vera Zorina, film star, and military representatives of Great Britain, Cuba, Fighting France, Greece, the Netherlands, Norway, China and Russia, were among guests of honor at the banquet.

Earlier in the day Gen. Marietta presented the "E" flag to Mr. J. J. Brodbeck, president of Ciba, and Sam and Carmelo Tarranova, father and son who represented employees. Capt. Reynolds Hayden (MC), medical of-

ficer of the Third Naval District, presented "E" pins to Miss Helen Danow, Mrs. Grace Furneld, Mrs. Helen Hanlon, Miss Gertrude Hayes, Harry Bosshard and Rheinhold Uebele, acting for all employees. Lowell Thomas acted as master of ceremonies.

ASSOCIATION OF MEDICAL ASSISTANTS, SAVANNAH, INSTALL OFFICERS

New officers of the Association of Medical Assistants were installed at a meeting and delightful party last night with which Mr. and Mrs. R. W. Russell, Jr., entertained in the manager's suite of the Hotel Savannah. Mrs. Russell, wife of the hotel manager, is a former president of the medical assistants.

Mrs. Marguerite Morgan, president; Mrs. Barbara Tankersley, vice-president; Mrs. Clyde Garvin, secretary, and Mrs. Frances Risher, treasurer, were the new officers installed. Mrs. Morgan, assistant to Dr. H. F. Sharpley, Jr., succeeded Mrs. Catharine Miller, assistant to Dr. Lee Howard, as president.

Honoring their assistants, Dr. Sharpley and Dr. Howard, as well as Dr. C. F. Holton, to whom Mrs. Russell is medical assistant, were guests, Miss Carolyn Proctor, an assistant to Dr. J. K. Quattlebaum, became a new member, and Miss Mary Newton, an assistant to Dr. Robert Drane, was a guest.

Mrs. Miller installed the new officers and made a brief talk. Following the business meeting Mr. and Mrs. Russell served delightful refreshments, concluding with a buffet supper.

—Savannah Press, Savannah,
February 4, 1943.

MEDICAL MEETINGS DURING THE WAR

Mr. Stephen McDonough, Washington, in a letter to Mr. C. P. Loran, Secretary-Manager, Southern Medical Association, just prior to the Richmond meeting of the Association in November, 1942, said:

"Last Friday I rode over from the Munitions Building to the new Pentagon Building with Dr. Vannevar Bush, Director of Scientific Research and Development, and I mentioned the holding of scientific meetings in war-time. He said: 'Physics meetings? No. Chemical Society meetings? No. Medical meetings? By all means they should be continued with even greater emphasis than before. We must preserve and disseminate advances in medical knowledge as never before.' If you need any better opinion than that I don't know where to find it."

Our information is that Dr. Vannevar Bush is President of the Carnegie Institute of Washington, a research organization, was formerly president of the Massachusetts Institute of Technology, and is one of the greatest living electrical engineers. He built the differential analyzer, a mechanism that solves the most intricate differential equations, and the network analyzer to solve power transmission problems, two of his most notable scientific contributions in his field of work.

Mr. Stephen McDonough, prior to the late summer of 1942, was for a number of years Science Writer for the Associated Press. He covered the annual meetings of the Southern Medical Association for the Associated Press for some six years prior to and including the St. Louis

meeting in November, 1941. Since late summer of 1942 he has been serving his country as a Captain, U. S. Army, Office of Chief of Ordnance, Washington.

SOUTHERN MEDICAL ASSOCIATION.
Birmingham, Alabama.
February 15, 1943.

JACK TOOHY WITH OPA; DR. WRIGHT IN NAVAL RESERVE

Two more Squibb executives have gone into war service. On March 1, J. J. Toohey, manager of distribution, joined the Office of Price Administration in Washington, D. C., and Dr. L. H. Wright, head of the department of anesthetics, entered the Naval Reserve with the rank of lieutenant commander.

Jack Toohey brings to his new work as chief of the Drug, Cosmetic and Soap Section of the Chemicals and Drugs Price Branch of OPA, headed by P. M. Malin, a thorough knowledge of all phases of the drug industry and a wide acquaintanceship among retailers, wholesalers and manufacturers. During the 21 years he has been with Squibb, he has served in all branches of manufacturing—from laboratory work to sales executive. Since 1939 he has been in charge of distribution. He is a vice-president of the New York Board of Trade and a member of the Advisory Council of the Board's Drug, Chemical and Allied Trades Section.

Dr. Wright, who reported to the Naval Hospital at St. Albans, N. Y., on March 1, has specialized in anesthesia and has studied his subject in a number of institutions since receiving his M.D. from the University of Georgia School of Medicine. He joined the anesthetics department of E. R. Squibb & Sons in 1930 and has been at the head of it for the past several years.

NEW SQUIBB CAPSULES SUPPLY MASSIVE DOSES OF VITAMIN D

To provide massive doses of Vitamin D for use in the treatment of hypoparathyroid tetany and certain types of rickets, E. R. Squibb & Sons, New York, are now supplying capsules of Viosterol, each containing 50,000 U.S.P. units of vitamin D₂. The capsules are packed in bottles of 40 and 100.

Clinically, vitamin D may be used to produce either of two effects, depending upon the dosage. In relatively low dosage, it exerts antirachitic activity, while in high dosage, ranging upward from 60,000 units daily, it raises a subnormal serum calcium level and is therefore useful in hypoparathyroid tetany. It is also sometimes administered as a single massive dose in the treatment of active rickets.

In hypoparathyroid tetany, an initial dose of eight or more Squibb Vitamin D Capsules daily is suggested, and a maintenance dose of two to four daily. In obstinate rickets, one capsule daily is recommended; in refractory rickets, one or more capsules daily; and in thoracic rickets, one capsule daily for two or three weeks.

In addition to the new Vitamin D Capsules, Squibb, of course, will continue to supply Viosterol in Oil, one gram of which contains the equivalent of 10,000 U.S.P. XII units of vitamin D.

BURROUGHS WELLCOME & CO. RECEIVES ARMY-NAVY PRODUCTION AWARD

In recognition of outstanding achievement on the production front, the employees of Burroughs Wellcome & Co., manufacturing chemists in Tuckahoe, New York, have been presented with the Army-Navy "E" Award.

Burroughs Wellcome & Co., produces immense quantities of medicinal preparations as well as first aid equipment for our armed forces all over the world.

The resources of this world-wide organization, its scientific staff, modern equipment, laboratories and associated scientific institutions for research are pledged to the allied cause of winning the war.

ASK A DOCTOR NOT A DRUGGIST

By H. C. NAYLOR, President
Lane Drug Stores, Inc.

Every day the conscientious druggist explains to a number of people that it is the doctor's province to diagnose, the druggist's to fill prescriptions.

A physician is trained to take into consideration every factor of disease. Age, sex, employment, temperament, heredity, environment, for all play their part in illness. The doctor patiently unravels this individual pattern and arrives at the basic cause of a malady.

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(This is one of a series of Editorial Advertisements appearing in newspapers each week. Copyright).

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THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

VOL. XXXII.

Atlanta, Georgia, April, 1943

Number 4

FUNCTIONAL DISORDERS OF THE CIRCULATION

H. C. SAULS, M.D.
CARTER SMITH, M.D.
CHARLES F. STONE, M.D.
Atlanta

Perhaps the most frequent circulatory problem encountered by the physicians of today is whether or not the patient's complaints are functional or organic in nature. By well intended propaganda the lay public has become almost as "heart conscious" as it is of cancer and tuberculosis. This, together with the advent of World War II and a revival of the so-called "soldier's heart" of World War I, has made a thorough understanding of the functional circulatory disorders imperative at this time.

Without close scrutiny and proper evaluation such symptoms as breathlessness, palpitation and precordial pain can easily be mistaken for manifestations of either functional or organic heart disease. Such physical signs as accentuated first heart sounds, systolic murmurs and tachycardia may be equally confusing to the examiner. This close similarity in both symptoms and signs makes difficult the problem of deciding whether or not they represent functional disorders or organic disease.

The importance of proper interpretation of symptoms and signs and the subsequent proper management of these patients cannot be too strongly emphasized. An error in either direction may result in an incapacitated citizen or soldier, whereas a correct diagnosis may either restore a cardiac neurotic patient to complete recovery, or one with organic heart disease to at least limited usefulness.

In 1871 DaCosta¹ first described the

symptom-complex which has since been variously labeled as soldier's heart, disordered action of the heart, effort-syndrome, neurocirculatory asthenia; and more recently, anxiety neurosis with effort intolerance.

During and since World War I, Sir Thomas Lewis² studied intensively many patients with this syndrome. In a follow-up of 600 such patients over a period of 5 to 7 years, 20 per cent were found to be totally and permanently incapacitated, 20 per cent had recovered completely, and the remaining 60 per cent had improved sufficiently to perform light work. In spite of their incapacity, the death rate for the group was within normal limits but there was for the group an 80 per cent above the average incidence of tuberculosis.

Grant³ followed 601 such patients for 5 years and found that 15.3 per cent recovered completely and 56.2 per cent had failed to improve.

White and Hahn⁴ studied 52 patients presenting this syndrome. They were able to divide them etiologically into three groups: psychogenic, postinfective, and constitutional. They preferred the name neurocirculatory asthenia rather than effort-syndrome.

Since the advent of World War II more intensive study of these patients leads one to believe that this circulatory disorder is more basically psychogenic in origin. It is now felt that the psychiatric factors were too largely neglected during 1914-18, and that this error resulted in 44,000 permanent pensioners in the British armed services from this one disorder.² Perkinson⁵ in a study of this syndrome in the present war feels that further investigations in the fields of psychiatry, endocrinology and the autonomic nervous system will serve to broaden our vision of a still too obscure problem.

Wood⁶ in a recent and most exhaustive

clinical study of a large group of patients with this syndrome, feels even more strongly that the basic disorder is in the psychosomatic sphere, and that both diagnostic and therapeutic effort in this direction will be most productive both of further knowledge and therapeutic success.

Clinical Studies

(From the literature)

Age: The average age of these patients in civil life is 31.5 years⁷, while in the military service the average age of those with the syndrome is 28 years⁶.

Sex Ratio: This averages about 3 males to 2 females.

Race Distribution follows that usually seen in psychosomatic diseases, being highest in the Jewish and lowest in the colored race. Interesting distributions have been described in the various nationalities of the Aryan race in that it is seldom seen in the Anzacs and occurs with almost equal frequency in British, Canadian and Germans⁶.

McCullagh⁸ has shown that 2.16 per cent of 2,680 patients admitted to the Cleveland Medical Clinic had neurocirculatory asthenia. This should be a fair cross-section of its occurrence in civil population. The association of this syndrome with other diseases has been frequently described. White⁷ has shown that 13.7 per cent of 5,000 patients with cardiovascular symptoms had neurocirculatory asthenia, but that 19 per cent of all patients with neurocirculatory asthenia have some organic heart disease. It is, then, obvious that we must not close our eyes to the possibility of the coexistence of both organic and functional disorders of the circulation. Lewis² and others previously demonstrated the high incidence of pulmonary tuberculosis in patients with effort-syndrome.

The development of this syndrome occurs occasionally as a sequel of influenza or other febrile infections. This, however, is now felt to be simply a "trigger mechanism" for the explosion of the psychosomatic manifestation.

Contrary to usual expectation, the syndrome is seldom precipitated by shock, explosion, or battle wound, but more often by anticipation of such incidents⁶.

An Evaluation of the Major Symptoms and Signs of This Syndrome

Tachycardia: When under emotional strain, this is a most common symptom and sign. In the group studied by Wood⁶, the heart rates varied from 48 to 136 per minute, while in a normal control group, the heart rate variations were from 48 to 100 per minute.

Exercise responses were notoriously poor indices of circulatory efficiency. The effect of emotion is of primary importance both in the resting rate and in exercise response rates. Even the normal athlete will show an excess rate response to exercise when emotional stress is also in the picture. Tachycardia per se is not detrimental to the circulation² and the rapid rates usually seen in DaCosta-syndrome are probably of no functional significance.

Acceleration of the heart by intravenous injections of adrenalin or atropine is no greater in a group of normal controls than in a group with effort-syndrome⁶. These observations tend to rule out cardiac irritability from normal sympathetic stimulation or decreased vagal tone.

Respirations: Shortness of breath is another symptom common to all patients with effort-syndrome. They experience a true sense of breathlessness even without exercise. Deep sighs and true hyperventilation are often associated with emotional disturbance. The average breath-holding limit in these patients is 21 seconds, while that in normal individuals is 30 seconds or more. In patients with neurocirculatory asthenia, there is no apnea following a period of over-breathing. Apnea as long as 2 minutes will occur in normal individuals after over-breathing⁶. This disturbance in normal respiratory behavior is also an emotional manifestation that is not yet well understood.

Soley and Shock⁹ demonstrated a shift in the acid-base balance resulting from hyperventilation. Other workers are not in accord with this theory^{10, 2, 6}. Over-breathing will produce many symptoms (hyperventilation tetany) similar to those experienced by patients with neurocirculatory asthenia, but it seldom produces pain in the left chest.

Precordial Pain: About 64 per cent of patients with effort-syndrome complain of precordial pain^{10 11}. The pain is rather characteristically different from true angina pectoris in that it is pain in the left inframammary region and is often associated with tenderness in the 4th, 5th, and 6th intercostal spaces². The mechanism of the pain in neurocirculatory asthenia is still obscure, but more recent workers⁶ feel that it is probably a result of increased tone of the diaphragmatic muscle. Its left-sided location is a result of the heart's pressure on the diaphragm in that area and the psychic role of the heart's position.

Blood Pressure: On initial examination the blood pressure is often elevated to 145 - 160 systolic; 80 - 95 diastolic. The cold pressor test is positive in only 10 per cent of patients with neurocirculatory asthenia, while it is positive in 15 per cent of normal controls¹². This test is quite devoid of any emotional factors and illustrates well the lack of a fundamental hypertensive tendency in these patients. The blood pressure response to intravenous adrenalin injections is the same in neurocirculatory asthenia patients as in normal controls⁶. Subsequent hypertension does not occur more often in these patients than in normal individuals; and the blood pressure fluctuation that occurs is again psychosomatic or emotional.

Other symptoms usually found in patients with neurocirculatory asthenia are headache, morning lassitude, excessive sweating, dermatographia, dizziness, fatigue, weakness, and nervousness.

The Psyche and the Physique

That the symptoms of effort-syndrome are largely due to physiologic disturbances of psychosomatic origin, is accepted by most workers. The significance of this was suggested 25 years ago by Lewis² and other workers, and its true import has been clearly demonstrated by more recent observers^{13 5 6}.

The common denomination for all individuals with effort-syndrome is a psychoneurotic personality. This often has a definite hereditary link and is further developed by faulty environment during childhood.

Fear and timidity are constant factors in the emotional make-up of these individuals. Manifestations of these patterns of instability occur early in childhood. Frequently, fear of injury prevents participation in school games. It is not uncommon for cardiovascular symptoms to occur in the early teens. This reaction is, then, first linked with effort, and the basis for "effort-syndrome" is established. The association of cardiovascular symptoms with effort is often misinterpreted by the well meaning parent and family physician. This misinterpretation foregoes the final link in the chain of development of effort-syndrome, for then the patient begins the development of a conditioned reflex which results in the clinical picture. After the soil has thus been made fertile, the seeds of precipitation grow abundantly. "Trigger mechanisms" that initiate the symptom-complex may be anything that provokes an emotional upset. Postinfectious states such as that following influenza have often been blamed as precipitating factors. Doubt is expressed by some authors⁶ as to the primary effect of infection as a trigger mechanism. Infections may serve to produce general weakness, which in turn may initiate symptoms that are misinterpreted by the patient, and the vicious circle is begun.

Finally, it may be said that in either war or peace, effort-syndrome is an emotional reactive pattern peculiar to psychopathic personalities in whom a link is established between the emotional imbalance and physical effort with the resulting symptom-complex.

Treatment

Once a clear understanding of the foregoing etiologic factors is obtained, therapeutic procedures are relatively obvious. A differential diagnosis must be painstakingly pursued before the beginning of therapy. It is often extremely difficult to decide whether or not the patient has effort-syndrome or other diseases that present similar symptomatology. Most common confusers in the differential diagnostic study will be low-grade rheumatic disease, hidden focal infections, incipient pulmonary tuberculosis, masked hyperthy-

roidism, obscure coronary disease, and organic hypertension in its early fluctuating stage. In order to arrive at a correct diagnosis and also to prepare the patient for successful psycho and physical therapy, a most complete diagnostic study must be undertaken. A careful history is probably the most important diagnostic procedure, and is probably much more valuable than exercise tolerance tests. A most detailed physical examination is essential, together with such diagnostic adjuncts as the electrocardiogram, blood count, urine examination, sedimentation rate, basal metabolic rate, and fluoroscopy of the heart and lungs.

After a correct diagnosis is established therapy is directed to the development of an adequate state of physical training by graduated exercise. The psychic rehabilitation of a fear-riddled mind is the approach to permanent recovery. To point out to the patient the mechanism by which his unstable emotions have produced clinical symptoms, and then to replace fear with confidence, is the psycho therapeutic goal.

Many of these patients are curable and can be restored completely to normal usefulness if sufficient time, effort and patience are expended by the doctor. Complete recoveries of these patients, as noted in serial studies in the literature, range from 20 to 85 per cent. In a recent series of 182 patients⁶, 31 per cent were cured completely, 36 per cent were improved, and 32 per cent were unimproved. This is a much higher recovery rate than is seen in any other cardiovascular disorder, except possibly that of thyroidectomy for thyrotoxicosis. This high recovery rate is then a further challenge, both to the civil and military medical profession, for a more thorough understanding and a more intelligent handling of these patients.

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DISCUSSION ON PAPERS OF DR. WM. HARBIN, JR., AND
DRS. H. C. SAULS, CARTER SMITH AND
CHARLES F. STONE

Dr. W. F. Hamilton (Augusta): It is a great pleasure to discuss papers of such evident merit and scholarly completeness. There are no loose ends to pick up and I am forced back to my own resources to utilize the time at my disposal. No one ever heard of a habitual professor not utilizing all the time at his disposal.

As one who investigates physiologic puzzles and who tries to teach the fundamentals of the subject to medical students, I find it of great interest to think of the manifestations of disease in many cases as being some distortion of a mechanism that plays a part in integrating the physiologic government of a normal organism.

The normal functioning of the mechanism which produces hypertension in the presence of kidney ischemia is beginning to emerge. It seems to be the regulator of the background of blood pressure. Its role is different from that of the control by the sympathetic nervous system which makes blood available to the muscles, heart and brain during an emergency. It furnishes the fundamental base line toward which the nervous regulation tends to restore the blood pressure.

For mechanical reasons, which I need not go into, the kidney cannot function unless the blood comes to it under a good head of pressure. The kidney has developed a mechanism to maintain its blood pressure. If for any reason the effective blood pressure to the kidney tissue is inadequate, the preglomerular organ secretes renin. Renin acts upon the pseudoglobulins of the blood to form angiotonin. This substance, if it here escapes the stultifying action of angiotonin inhibitor—which is also secreted by kidney tissue—constricts all of the blood vessels and produces an asymptomatic rise in blood pressure. Under the influence of these substances blood flow to the kidney is restored and it is no longer ischemic. Kidney function tests are normal. Such is the shortsighted policy of the kidney. The fact that the rest of the body may have hypertensive headaches or even may die of apoplexy is hardly considered by the kidney. The kidney is an uncompromising self-seeker.

The fact that renin is secreted in increased quantities when the general pressure is low, as in shock or after the injection of histamine, establishes the role of the mechanism in maintaining a normal as well as a hypertensive blood pressure.

The propriety of asking a student of the circulation to discuss the problem of neurocirculatory asthenia may be questioned. It has just been shown very beautifully that the problem is psychiatric rather than physiologic. Here again, however, the gradations between the normal

and the abnormal are of interest.

When an ordinary person undertakes violent effort, sooner or later he is slowed up and finally stopped by the respiratory and cardiac distress which are the reflex consequences of his effort. If this individual trains for athletic competition, he gradually improves not only in strength and coordination of his muscles but also in his ability to withstand the distress which is consequent on the increased activity of the cardiorespiratory apparatus. There is no question but that he has learned to take punishment.

Is it not true that in the soft, sheltered life which children live now, they miss the essential training in taking punishment? We try to reason with them and at the risk of apoplexy try again. Son has wriggled out of the natural consequences of his misdeeds and father has a sense of ineffectuality.

Might it not be better to restore the traditional function of the sacred area behind the woodshed—or some analogous location in a modern apartment—to teach son that life has its painful as well as its pleasant moments and that it is admirable to take one's punishment like a man? Thus son may escape the fate which Dr. Sauls has described, and father may die of senility instead of apoplexy.

RENAL HYPERTENSION

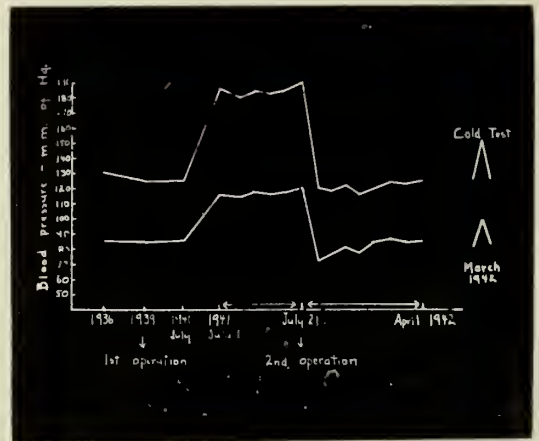
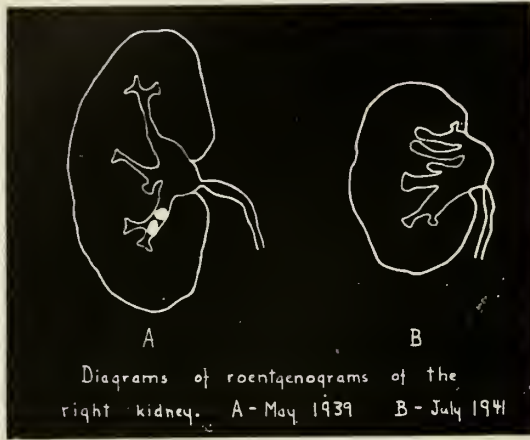
WILLIAM HARBIN, JR., M.D.
Rome

The association of hypertension with a restriction in the blood supply to the kidneys, producing renal ischemia, has been proven experimentally in animals and is in the process of being established clinically in patients. When the renal disease is unilateral, in carefully selected patients nephrectomy will give results which will compare favorably with those obtained with other methods of treatment.

In view of its therapeutic application this etiologic concept of hypertension is of importance in the practice of medicine, even though it is applicable at this time to only a small percentage of those patients who have high blood pressure. Hypertension of renal origin, as referred to here, is not to be confused with that which is secondary to glomerulonephritis. The discussion of this subject will center around those practical considerations which are helpful in enabling us to recognize hypertension which is associated with organic renal disease and to treat it properly. In addition, the interesting features of one case will be given.

Much experimental investigation has been done with reference to the renal origin of hypertension, the most outstanding being that of Goldblatt¹ who was able to produce persistent hypertension in dogs by constricting the main renal arteries. Others² have produced the same condition by wrapping kidneys with cellophane, causing a perinephritis and renal compression. The underlying mechanism in hypertension of this type is not fully understood. This experimental work and the increasing number of reported cases of hypertension associated with unilateral renal disease, cured for varying lengths of time by nephrectomy, provide the stimulation for careful study of those patients with so-called "essential hypertension." A variety of renal lesions so treated are on record, which include cases of unilateral chronic atrophic pyelonephritis³, tumor⁴, tuberculosis⁵, compression from a hemorrhagic cyst⁶, and congenital anomalies. Although some authors have reported poor results, in general these patients have been improved or cured temporarily, depending upon the period of observation, which has varied from a few months to ten years in one case. In obtaining good results, the outstanding feature has been the careful selection of cases for nephrectomy. A conservative prognostic attitude has been assumed, and rightly so, as these cases must be studied postoperatively for longer periods, before the effectiveness of this therapeutic agent can be evaluated correctly. There is a great difference of opinion as to how often organic renal disease is associated with hypertension, the reported percentages varying from 4⁷ to 45⁷. No doubt the lower figure is much closer to the actual percentage than the higher estimate.

In studying cases with hypertension, from the viewpoint of determining the presence or absence of localized renal disease, it is necessary to use most of those medical and urologic procedures which give us information about the kidney. A careful history and physical examination are of much importance, also x-ray studies, including excretory and retrograde pyelography, renal function tests and evidence of unilateral or bilateral urinary infection. It has been repeatedly shown that a small



contracted kidney may harbor an ischemic lesion, probably more often than any other one renal abnormality which we are able to detect clinically. The part which renal stasis may play in the production of ischemia is debatable at this time, except as it influences urinary infection. Renal function is usually normal until the pathologic changes are far advanced and, in view of this, ischemia cannot be ruled out merely because tests fail to show decreased function. The diagnosis of unilateral ischemic lesions will remain a difficult task until newer and more specific methods are available.

When such a lesion has been demonstrated and found to be an outstanding clinical feature, a nephrectomy is indicated only when the unilateral renal abnormality can be definitely connected with premalignant hypertension. This association is essential and must be present before surgical treatment is advisable. Nephrectomies, because of incidental renal disease, have accounted for the poor results obtained in certain reported cases. The following are the chief contraindications to be considered: First, the presence of bilateral renal disease; second, malignant hypertension of long standing with irreversible changes; third, the fact that an individual is above 50 or 55 years of age; and fourth, co-existing constitutional, hereditary or neurogenic factors capable of adverse influence. Unless cases are carefully selected many kidneys will be removed unnecessarily and patients will not obtain good results. In the future methods of treatment may be developed which will make surgical interven-

tion unnecessary. Time will not permit a discussion of the mechanism which produces hypertension of this type and its correlation with renal-vascular conditions⁹ about which there is much confusion and controversy.

The following is a resume of the case record of a patient with hypertension and unilateral renal disease.

Report of Case

This forty-six year old white man was seen in 1939 when two renal calculi were removed from his right kidney. Postoperatively, he developed an acute pyelitis and severe perirenal infection and after five weeks it was necessary to re-open his incision to drain adequately a lingering perinephritic infection. He came in for an examination in July 1941, stating that he had not felt well for six months. During this time he had had a generalized headache, which had grown progressively worse, becoming severe. His blood pressure, which had been normal, was found to be 185/120 and his urine contained considerable albumin and a moderate number of leukocytes. A comprehensive examination was not remarkable except for these abnormalities and the following changes in his right kidney: excretory and retrograde pyelograms revealed that this kidney was considerably smaller and distorted, when compared with the left and previous x-ray films made in 1939. The pelvis and calices were slightly dilated with a marked constriction at the ureteropelvic junction. Both kidneys excreted diodrast normally and there was no change in the appearance of the left kidney.

The patient was observed for three weeks; the last ten days of this period were spent in bed, and sedatives were administered. Even though resting his headache became worse, he was unable to sleep and complained of marked loss of appetite, severe mental depression and general malaise. The systolic blood pressure during this time varied between 180 and 190 and the diastolic from 115 to 120. A right nephrectomy was advised because of the hypertension of short duration associated with marked changes in his right kidney, capable of producing ischemia. He was a middle-aged man exhibiting much toxemia, no other factors could be found which might

have played a part in his hypertension, and his left kidney was apparently normal.

This operation was performed on July 21, 1941. His blood pressure returned to normal immediately, has remained at that level and his symptomatic recovery has been complete, with the exception of dysuria on two occasions, once with pyuria. At operation the kidney was fixed to the surrounding tissues by dense fibrous tissue. There was much scar tissue in the region of the renal pedicle, making it impossible to segregate the artery, vein and ureter. The kidney weighed 91 grams, which is approximately two-thirds as much as a normal kidney. None of the primary branches of the renal artery showed any abnormality. The capsule could not be identified; it was stripped in some areas and in others it was obliterated by the constricting mantle of scar tissue, which was directly adherent to the kidney parenchyma. Microscopic sections of the kidney showed normal cortex in the most areas, with the exception of inflammatory reaction in the periphery. An occasional small artery and arteriole showed intimal proliferation but most were normal and in no place was medial necrosis observed. In a few scarred areas the kidney parenchyma was damaged but otherwise it was normal.

The cause of this patient's renal ischemia was pericapsular fibrous tissue, producing compression of the kidney and renal pedicle. He has been cured for twenty months but a longer period of observation is necessary before a completely favorable prognosis will be justified. Blood pressure March 22, 1943, 135/86.

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MEMORIAL ADDRESS

WILLIAM R. DANCY, M.D.
Savannah

The sphere of life in this material world of ours is one of constant and kaleidoscopic changes of joy, levity, happiness; of sorrow, sadness, distress. These ever altering vicissitudes of life were never better portrayed than by the cycle of our day of twenty-four hours.

There is the birth — the dawn — the happiness — the newness — the freshness of the morning, adorned by the golden — silvered rays of the rising sun — a new day — a new life.

Father Time waves his wand, the hours pass. The sun has risen in all its grandeur and white fleecy clouds bedeck the blue

skies. The happiness of life itself is enjoyed; its sorrows experienced. The day passes on.

The West is aglow with crimson hues of the setting sun — the peaceful eveningtide of life. The remainder of the span is short; the orb of fire in all its gorgeous beauty sinks into the great beyond of oblivion.

Then darkness casts its veil like the haunted specter over all. Concealing its mysteries and portraying, as it were, the marvelous handiwork of Nature, spread overhead in Heaven's ebony vault studded with stars unutterably bright, the silent gems of eternity, in our home beyond the horizon of human understanding.

Again, a sudden change, another manifestation of the omnipotent; the chilled winds blow; they shriek through the vast forests; the giant trees bow in graceful submission and twist in synchronous gyrations, demonstrating the might of Nature. It must have been such a picture that inspired those poetically rhythmic lines:

"Lord of the Winds I feel the Nigh,
I hear thy voice in the burning sky,
And with a thrill in every vein,
I fear the coming of the Hurricane."

On the wings of the night and this tempestuous blow, come the low, heavy scudding storm clouds, striking fear and dread in the hearts of all. The rain descends in a deluge, then the hail, followed by Nature's most beautiful garb, blankets of deep white flocculent snow.

In every phase of this remarkable cycle of life, the physician is ever present, performing the bidding of his profession, adding to the prestige and renown of his glorious work.

The night wears on. Over the severely chilled and pure white landscape, appears a dim lantern light in the window of an humble cottage; and as the dawn breaks on this inspiring scene, one observes before the door of the little cottage, the doctor's conveyance, be it a blanket covered horse attached to a one-horse shay or the modern automobile. Within a crowded sick room, lighted chiefly by the burning embers of old pine knots, the loyal and beloved physician, who has braved the discomforts

and the dangers of this tempestuous night, is present to administer to the sick. May-be it's an aged loving head of a large family passing to his reward or possibly the advent of a new life into this world.

In these as in other fields of medicine, the physician has always rendered his services unflinchingly and regardless of reward or consequences. The rich, the poor, the indigent, the sick, all alike owe him a debt of deep gratitude. Regardless of station in life, creed, finances or race, the medical profession permits no one to suffer for the want of medical care.

The medical profession is the greatest and most enduring organization of all time. It is the one great star which illumines the world with its service, standing primarily and always for help and benefit to all mankind. It has withstood its critics and its enemies through the ages and today stands forth in all its glory, surrounded by its attainments, as the greatest, noblest, and most helpful institution of mankind. Thinking on its charity, I would quote

"And only the Master shall praise them,
And only the Master shall blame,
And no one shall work for money,
And no one shall work for fame;
But each for the joy of the working,
And each in his separate star,
Shall draw the thing as he sees it,
For the good of things as they are."

The membership of the medical profession consists of a personnel of specifically trained men — Doctors of Medicine. They are human, being born, have their being, render incomparable service, and in their own good time lay down the working tools of life, board the Ship of Destiny, sail out onto the River of Hope, finally heaving their anchor in the harbor of eternity, and resting forever in that haven of perpetual happiness and peace.

"And I sit and think when the sunset's gold,
Is flushing river and hill and shore,
I shall one day stand by the water cold,
And list for the sound of the boatman's oar;
I shall watch for the gleam of the flapping sail;
I shall hear the boat as it gains the strand,
I shall pass from sight with the boatman pale,
To the better shore of the spirit land;
I shall know the loved who have gone before,

And joyfully sweet will the meeting be,
When over the river, the peaceful river,
The angel of death shall carry me."

For

"One ship drives east and another west,
While the self same breezes blow;
It is the set of the sails; not the gales,
Which bids them the way to go."

During the past year a number of our fellow members have completed their services here on earth with distinction. Their noble careers have added new laurels to the profession. Their appealing personalities have made life sweeter and better for all. Their loyalty to duty has made us love every one. They have been our companions at these annual conventions and have upheld with honor the tenets of the practice of medicine. They have passed through the sunshine and the shadows of life and finally have gathered as we must all do in our good time, at the shores of the River Eternal, embark and cross to the harbor of perfect Peace and Joy to everlasting life in the realm of our Heavenly Father.

"O Star on the breast of the river,
O marvel of beauty and grace,
Did you drop right down from Heaven,
Out of the sweetest place.

"Nay, nay, said the Lily, I fell not from Heaven.
None gave me my saintly white,
But I silently grew up from the darkness,
And up from the dreary night.

"From the ooze and slime of the river,
I won my glory and grace,
White souls fall not. O my poet,
They rise to the sweetest place."

And so it is that we are here today, overcome with profound grief, with heavy hearts, with feeling memories and with most loving respect, to honor the passing of those who were but yesterday our happy and loved companions, and who by their momentous deeds did honor our profession. We know were but yesterday our happy and loved no traveller returns, for they were worthy servants of the Great Master. In the evolution of time we shall meet them face-to-face and greet them in that Home Not Made With Hands, Eternal in The Heavens.

Lest we forget, we shall proceed to remind you of those who have passed during the year.

Names read of each and picture shown on the screen.

Names of Deceased Members

Adams, Edwin Gaillard, Greensboro, March 18, 1942, aged 65.
 Askew, Pleasant Henry, Jr., Nashville, May 31, 1941, aged 31.
 Bagley, J. B., Waresboro, December 30, 1941, aged 76.
 Bailey, Thomas Sargent, Newnan, December 13, 1941, aged 66.
 Branch, Arthur Clifton, Glennville, September 30, 1941, aged 58.
 Bryson, Robert Irvine, Augusta, June 4, 1941, aged 55.
 Canning, Gustave T., Athens, January 3, 1942, aged 71.
 Carter, Daniel Matthews, Madison, April 11, 1942, aged 60.
 Chambliss, J. Wade, Americus, April 5, 1942, aged 61.
 Chason, Thomas, Donalsonville, November 24, 1941, aged 69.
 Clements, James Richard, Pelham, May 24, 1941, aged 65.
 Clower, R. J., Morven, January 12, 1942, aged 69.
 Coile, Frank West, Winterville, December 14, 1941, aged 77.
 Cone, Rufus L., Statesboro, August 1, 1941, aged 62.
 Dean, Jarvis Gipson, Dawson, September 11, 1941, aged 83.
 Dorough, G. D., Quitman, March 16, 1942, aged 76.
 Ellis, S. Thomas, Claxton, January 13, 1942, aged 73.
 Fite, Berry W., Resaca, January 13, 1942, aged 80.
 Garrison, William Henry, Clarkesville, November 12, 1941, aged 58.
 Gilmore, Eugene Leffler, Tallapoosa, November 16, 1941, aged 73.
 Greer, Charles A., Oglethorpe, October 9, 1941, aged 69.
 Hale, Blair Cantrell, Rossville, February 25, 1942, aged 55.
 Hall, Warren Lee, Nicholls, November 20, 1941, aged 52.
 Hammond, John Hill, LaFayette, November 26, 1941, aged 85.
 Horne, Joseph Madison, Finleyson, April 26, 1942, aged 74.
 Johnson, James Henry, Columbus, May 11, 1941, aged 75.
 Kitchin, Samuel Cathcart, Louisville, December 22, 1941, aged 50.
 Kirby, Ellis Grover, Bowdon, August 9, 1941, aged 56.
 Lane, Isaac H., LaGrange, February 25, 1942, aged 76.
 Martin, John W., Macon, December 17, 1941, aged 71.
 McCulloh, Hugh, Sr., West Point, June 2, 1941, aged 68.
 McMichael, Jack Richard, Quitman, October 6, 1941, aged 57.
 Merritt, Thomas M., Americus, March 30, 1941, aged 77.
 Myers, William Herman, Savannah, July 17, 1941, aged 62.
 Neal, Joseph W., Scotland, March 3, 1942, aged 77.
 Peek, Charles W., Cedartown, March 1, 1942, aged 76.
 Prather, William Stuart, Americus, November 12, 1941, aged 83.
 Reddick, Alton Bowie, Sylvania, January 13, 1942, aged 56.
 Sapp, Eli Franklin, Albany, February 11, 1942, aged 61.
 Shields, Jacob Alex, LaFayette, July 28, 1941, aged 66.
 Slaughter, Richard Franklin, Augusta, July 4, 1941, aged 35.

Stewart, John Chesley, Atlanta, April 11, 1942, aged 64.
 Story, John Wesley, Perry, November 4, 1941, aged 70.
 Traylor, George Albert, September 15, 1941, aged 61.
 Usher, John Arte, Savannah, July 15, 1941, aged 64.
 Williams, Ledford A., Abbeville, May 13, 1941, aged 75.
 Wood, Charles Van, Cedartown, December 23, 1941, aged 66.

Wood, James Posey, Cedar Grove, September 29, 1941, aged 71.

"Sunset and evening star,

And one clear call for me,

And may there be no mourning at the Bar.

When I put out to sea.

But such a tide as moving seems asleep,

Too full for sound or foam,

When that which drew from out the boundless deep,

Turns again home.

"Twilight and evening bell,

And after that the dark.

And may there be no sadness or farewell,

When I embark.

"For though from out our bourns of time and place,

The flood may bear me far,

I hope to see my pilot face-to-face,

When I have crossed the Bar."

The services were opened with prayer, then a splendid quartet, with organ, rendered a selection.

The speaker's address followed, during which distant chimes were sounded.

At the break in the address the name of each physician was called as his picture was thrown upon the screen and the dates of birth and death were called also. At the conclusion of each such announcement, a deep sounding gong was struck to add to the impressiveness of the ceremony.

The address was followed by a second rendition by the choir of four male voices (quartet) and organ.

The exercises were closed with prayer.

This list of deceased physicians has been compiled since our 1941 annual session as their names appear on our records. Please notify the Secretary-Treasurer of any errors or omissions.

STUDIES SUPPORT THE RULE TO OMIT DIABETIC PERSONS FROM DRAFT

Studies reveal that the present rule to omit diabetic persons from the Selective Service appears proper, Elliott P. Joslin, M.D., Boston, declares in the Medicine and the War section of *The Journal of the American Medical Association* for January 16.

He says that it is estimated that there are about 800,000 living persons with diabetes in the United States and that one might suppose that among them there would be many who could serve their country as members of the armed forces.

He says "both by arbitrary statistical estimates as well as by computations, based on an actual study and selection from a series of 8,500 persons diagnosed as having diabetes, that in the United States today the number of diabetic persons available for the Army or Navy lies between 4,500 and 1,800 men. With these figures in mind, the diabetic quota useful for military service is relatively so insignificant, the hazards which both the diabetic and the government would undergo if they were inducted are so great and the need for their services in civilian occupations, where they would be less exposed to complications, so apparent, that the present rule to omit them from the draft appears proper."

THE WITHDRAWAL OF PHYSICIANS IN PRIVATE PRACTICE FROM GEORGIA

ANTONIO CIOCCO AND ISIDORE ALTMAN
Bethesda, Maryland

The data on which this report is based were obtained from the Georgia State Procurement and Assignment Office in December 1942. In that office, a file of 4" x 6" cards, arranged in alphabetical order by counties and by physicians in each county, summarizes the information on the physicians of the State. On each physician's card are indicated his age, sex, color, specialty, essentiality (if determined) and military status. To keep the file current, the physicians responsible for the operations of Procurement and Assignment within the counties (the county chairmen) have from time to time been requested to furnish the State Chairman with information concerning changes in the status of the physicians practicing in their counties.

Changes in the Ratio of Physicians to Population

The total number of physicians in private practice on July 1, 1940, is estimated by summing the number of physicians in private practice on December 1, 1942, with the number of physicians formerly practicing in Georgia but now on extended active duty with the armed services. According to this estimate there were on July 1, 1940, 2,262 physicians in private practice. Of these, 2,126 were white males, 118 Negro males, and 18 white and colored females. Thus, there was 1 physician for every 1,381 persons. Up to December 1, 1942, 484 white physicians and 1 Negro physician had entered the armed services. By that date there remained 1,777 physicians in private practice, or 1 physician per 1,758 persons.

A comparison of the distribution of counties in 1940 and 1942 with reference to persons per physician is presented in Table 1. In 1940, 31 per cent of the counties possessed at least 1 physician for each 1,500

persons. In 1942, the percentage of such counties had dropped to 9 per cent. On the other hand, in 1940, 17 per cent of the counties had less than 1 physician per 3,000 persons, while in 1942, 26 per cent of the counties were thus situated.

The change in the ratio of physicians to population between the two periods in each county is illustrated in Figure 1. The map and its key are self-explanatory and as a visual aid, counties where the ratio changed between July 1, 1940, and December 1, 1942, have been heavily outlined. The large number of counties which have suffered serious decrease in physicians, as measured by the ratio, is to be noted. All sections of the State but the southeast seem to have a high proportion of counties in which the class of ratio changed, although no pattern or regularity is discernible. Some tendency towards greater homogeneity in physician-population ratio may be described.

Withdrawal of Physicians and Ratio of Physicians to Population

In Table 2 are given the percentages of physicians under 45 who were on extended active duty on December 1, 1942. It is apparent that the counties with more physicians per population have contributed proportionately more than the counties with less physicians. Among the physicians under 45 years of age practicing in counties with at least one physician per 1,500 persons, 59 per cent have entered the armed services. The percentage falls steadily to 38 for the counties with more than 3,500 persons per each physician.

Withdrawal of Physicians and Race (Color) of Population

According to the 1940 census the population of 87 counties of Georgia is composed of 33 per cent or more Negroes. In these counties there were on July 1, 1940, 360 practicing physicians under 45 years of age, and by December 1, 1942, 57 per cent of them had entered the armed services. Among the physicians under 45 who practiced in the 72 counties with less than one-third Negro population, 54 per cent had entered the armed services during the period studied.

From the Division of Public Health Methods, National Institute of Health, U. S. Public Health Service. A study carried out for the Committee on the Allocation of Medical Personnel of the Procurement and Assignment Service.

Therefore, between the two groups of counties there is no appreciable difference in the proportion of physicians contributed to the armed forces. Nor is much difference to be found when the comparison is made between counties having the same ratio of physicians to population.

TABLE 1.—Distribution of Georgia counties by number of persons per physician on July 1, 1940, and December 1, 1942

Persons per physician	Number of Counties	
	July 1, 1940	Dec. 1, 1942
Under 1000	5	1
1000-1499	44	13
1500-1999	31	39
2000-2499	30	38
2500-2999	22	27
3000-3499	8	12
3500 and over	19	29
ALL	159	159

TABLE 2.—Number and percentage of physicians under 45 who were on extended active duty on December 1, 1942, by ratio of physicians to population in county of practice

Persons per physician	July 1, 1940		December 1, 1942	
	Number of counties	Number of physicians under 45	Physicians under 45 in armed forces	
			Number	Percent of physicians under 45
Under 1500	49	596	349	59
1500-2499	61	182	85	47
2500-3499	30	34	14	41
3500 and over.....	19	13	5	38

TABLE 3.—Average effective buying income per family in Georgia counties: Counties grouped by number of persons per physician, July 1, 1940

Persons per physician	Number of counties July 1, 1940	Mean of average effective buying income* per family (in dollars)
Under 1000	5	1,765
1000-1499	44	1,329
1500-1999	31	1,047
2000-2499	30	916
2500-2999	22	851
3000 and over.....	27	704

*Source: Sales Management, April 10, 1940, pp. 116-118.

Withdrawal of Physicians and Economic Status

As an index of economic status, data on

effective buying income per family for 1939 have been employed. The relationship between buying power and the relative number of physicians in a population is well recognized and is strikingly illustrated for the counties of Georgia by the figures in Table 3. From an average of \$1,765 for the counties with at least one physician per 1,000 persons, the family expendable income diminishes to an average of \$704 for the counties with 3,000 or more persons per physician. As this relationship would lead one to expect, a higher proportion of physicians have been withdrawn from the wealthier counties than from the poorer ones. Thus, among the physicians under 45 practicing in counties where the family expendable income is more than \$1,000 annually, the percentage of men who have entered the armed services equals 57. It equals 48 for the counties

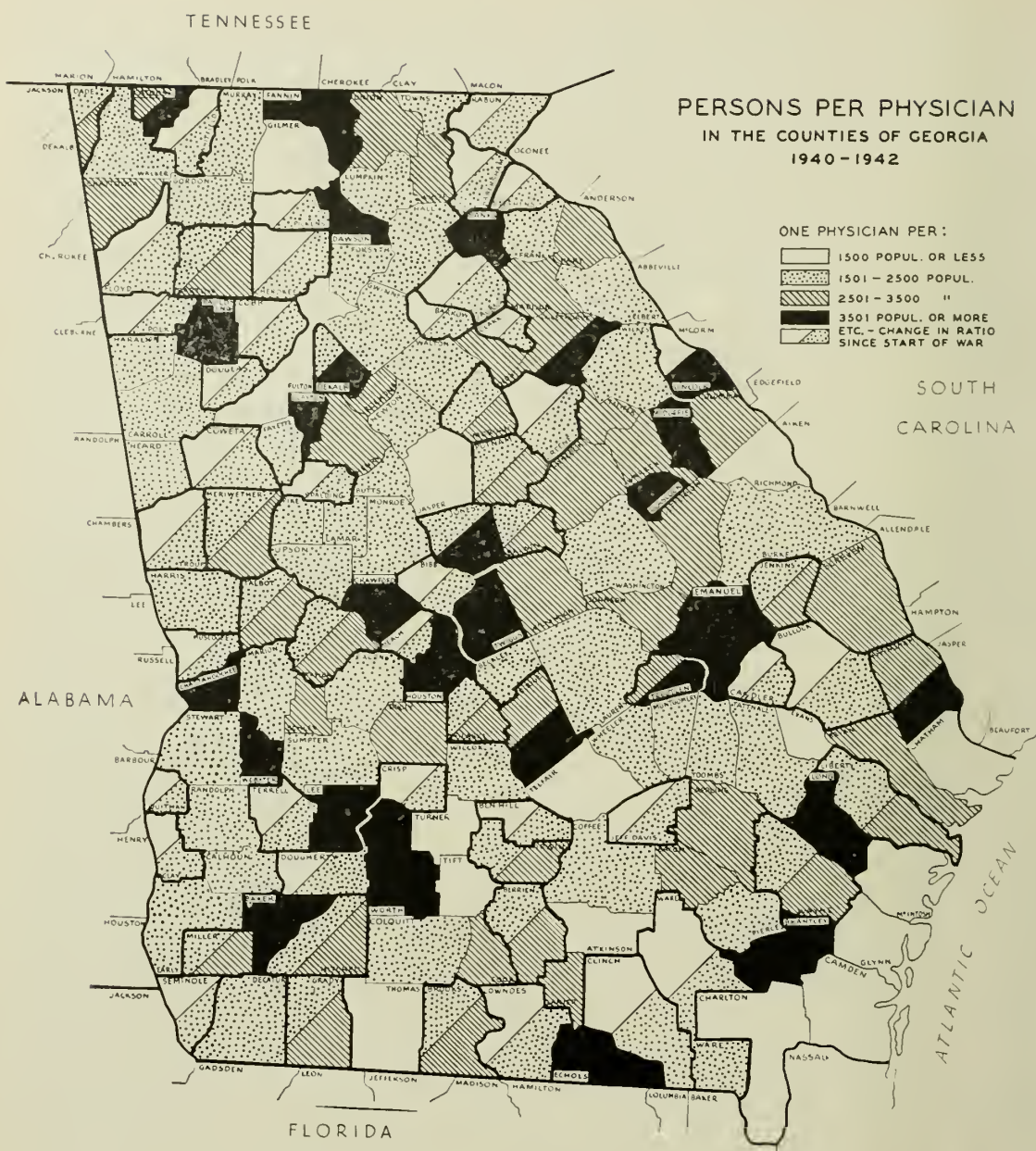
with less than \$1,000 annual family expendable income.

Withdrawal of Physicians and Hospital Facilities

Among the physicians under 45 years of age practicing in counties which possess one or more hospitals, 57 per cent entered the armed forces. On the other hand, the corresponding percentage for counties where there is no hospital is 47. The difference obviously reflects the association shown above to exist between buying power and number of physicians.

Effect of Withdrawal on Certain Areas

Physicians were commissioned from 6 counties in which the ratio of population



to practicing physicians before the war was already more than 3,000 to 1. In 14 other counties, where the ratios had been less than 3,000 per physician, the entry of physicians upon military duty caused the ratios to increase beyond this point. When to the physicians in the first 6 counties are added those physicians in the 14 counties whose going caused the ratio for the county to become more than 3,000 persons per physician, it is found that there were 27 physicians in these 20 counties who should, let us say, have been persuaded to stay in their private practices.

The physician-population ratios discussed thus far have been calculated on the basis of 1940 population data. But it is well known that a number of extra-cantonment and war production areas have experienced great increases in civilian population. If these increases (as estimated by the U. S. Public Health Service Reconnaissance Surveys) are added to the 1940 populations, it is found that in the area around one camp, for instance, the ratio of physicians to population drops to about 1 per 10,000; in another, the ratio, instead of being 1 per 1,500, is more nearly about

1 per 2,500. However, special investigation would have to be made of such areas to gather the true situation.

Summary and Comments

In Georgia the withdrawal of physicians from private practice to enter the armed services has increased the number of persons per private practitioner from 1,381 to 1,758. But the increase in number of persons per physician has not been the same in all counties; it has been greater in the counties with larger relative numbers of physicians, with greater buying power per family, and with hospital facilities.

This is as ought to be — the doctors have gone in greater numbers from those counties in which they were more plentiful and

which could more easily afford to lose them (at least as judged by ratio of physicians to population). But a significant number of physicians have been withdrawn from counties where the ratio was already, or as a result of such withdrawal fell to, less than 1 physician per 3,000 persons.

The factor of population increases in extra-military and war-industrial areas has been touched upon and would deserve more careful study. Suffice it here to say that the State Chairman of Procurement and Assignment Services and other interested persons are well aware of the situation and are making every effort to bring doctors into the areas where they are most urgently needed.

PROCUREMENT AND ASSIGNMENT FOR PHYSICIANS, DENTISTS AND VETERINARIANS CLASSIFICATION OF PHYSICIANS FOR GEORGIA—MARCH 25, 1943

County	W H I T E			NEGRO AND OTHER NON-WHITE					ACTIVE DUTY					
	37			65	37			65	White	Negro	Army	Navy	Army	Navy
	or less	38-44	45-64	or over	or less	38-44	45-64	or over			White	Negro		
Appling			4	1					5					
Atkinson			4	2					6					
Bacon	3								3					
Baker			1	1					2					
Baldwin	6	6	13	5					30		10			
Banks	1		3	2					6		1			
Barrow			6	3					9		2			
Bartow		1	9				1		10	1	2			
Ben. Hill	1		4	4					9		3	1		
Berrien	2		1	2					5		3			
Bibb	6	9	38	15			6		68	6	30	3		
Bleckley			1	3					4					
Brantley			1						1					
Brooks	1	1	1	4					7		2			
Bryan			1	1					2					
Bulloch		1	8	6			1		15	1	5			
Burke	3		5	2			1		10	1				
Butts			2	2				1	4	1	1			
Calhoun		1	2	4					7					
Camden	2		1	2					5		1			
Candler			3	2					5		2			
Carroll	1		13	5			1		19	1	2			
Catoosa	4		1	2					7		1			
Charlton			3	2					5		1			
Chatham	10	10	46	23		2	9	6	89	10	31	6		
Chattahoochee*														
Chattooga	2	1	6						9		2			
Cherokee	2		5	3					10		2	1		
Clarke		1	15	5	1				21	1	6	2		
Clay			3	2					5		1			
Clayton				3					3		1			
Clinch	2		2						4		1			
Cobb	3	2	12	8					25		6	1		
Coffee	2		8						10		4			
Colquitt	1	2	9	5					17		4			
Columbia			2	2					4					
Cook			2	2					4					
Coweta	2		8	4			1		14	1	6			
Crawford				2					2		1			

*Chattahoochee County, with exception of small area, occupied by Fort Benning.

(Continued)

PROCUREMENT AND ASSIGNMENT FOR PHYSICIANS, DENTISTS AND VETERINARIANS
CLASSIFICATION OF PHYSICIANS FOR GEORGIA—MARCH 25, 1943

(Continued)

County	W H I T E			NEGRO AND OTHER NON-WHITE					ACTIVE DUTY			
	37	38-44	45-64	65	37	38-44	45-64	65	White	Negro	Army Navy	
	or less			or over	or less			or over			White	Negro
Crisp	1	1	5	3			1		10	1	2	
Dade			1	1					2			
Dawson			1						1		1	
Decatur			8	3			1		11	1	1	
DeKalb	7	6	12	14					39		20	2
Dodge	1		6						7		3	
Dooly	1	1	4	2					8		1	
Dougherty	3	2	8	3			1	2	16	3	8	2
Douglas	1		3	2					6			
Early	1	1	4	2					8		2	
Echols			1						1			
Effingham			1	2					3		1	
Elbert		2	8	5		1			15	1		
Emanuel	1		4	2					7		2	
Evans	1		2	2					5		1	
Fannin	1	1	2	3					7			
Fayette			1						2			
Floyd	9	1	16	7		1	2		33	3	7	
Forsyth			4	1					5			
Franklin	1		4	3				1	8	1		
Fulton	55	64	278	97	3	5	25	5	494	38	108	36
Gilmer	1	1	1	3					6		1	
Glascocock		1							1			
Glynn	2	5	8	1	1		2		16	3	3	2
Gordon	2	1	3	6					12			
Grady		1	4	5					10		2	
Greene		1	4	3			1		8	1	2	
Gwinnett	2	1	6	8					17		1	
Habersham	5		9	6					20		1	
Hall	2	2	12	3			1		19	1	5	
Hancock	1		2	2			1		5	1		
Haralson	1		2	5					8			
Harris		1	2	3					6			
Hart			1	5					6			
Heard			2	2					4			
Henry	2		1	3					6			
Houston	1	1		1					3			
Irwin	1		1	3					5		2	
Jackson	1	1	6	4					12		1	
Jasper			4	2			1		6	1	1	
Jeff Davis	1	1	1	1					4		1	
Jefferson	1	1	6	2					10		2	
Jenkins			3						3		1	
Johnson			4	1					5			
Jones			1	2					3		3	
Lamar		2	1	2					5			
Lanier				2					2			
Laurens	2	1	9	4				3	16	3	4	
Lee			1	1					2			
Liberty	2		3						5			
Lincoln			2						2		2	
Long	1								1			
Lowndes	2	4	12	4			1	1	22	2	4	
Lumpkin		1		1					2		1	
McDuffie	2								2			
McIntosh		1	3	1					5		1	
Macon	2	1	2	3					7		2	
Madison		1	2	2					5			
Marion			2	1					3			
Meriwether	4	3	4	6					17		1	
Miller			3						3		1	
Mitchell		3	5	4					12		2	

(Continued)

PROCUREMENT AND ASSIGNMENT FOR PHYSICIANS, DENTISTS AND VETERINARIANS
 CLASSIFICATION OF PHYSICIANS FOR GEORGIA—MARCH 25, 1943
 (Continued)

County	W H I T E			NEGRO AND OTHER NON-WHITE					ACTIVE DUTY			
	37 or less	38-44	45-64	65 or over	37 or less	38-44	45-64	65 or over	White	Negro	Army White	Navy Army Navy Negro
Monroe	1	1	3	2					7			
Montgomery			3	1					4			
Morgan			3	1			1		4	1	1	
Murray			4	2					6			
Muscogee	6	8	27	12	2	1	6	1	53	9	17	
Newton		1	7	3					11		3	
Oconee			2	1					3			
Oglethorpe			2	2					4			
Paulding			3	1					4			
Peach			6	2				1	8	1	2	
Pickens	3		1						4		3	
Pierce	1		2	1					4		2	
Pike			3	1					4			
Polk	2		5	8		1	1		15	2	3	
Pulaski	2	1		1					4		2	
Putnam			1	1					2		3	
Quitman			1						1			
Rabun	1		2	1					4		3	
Randolph	1	1	5	2					9		2	
Richmond	29	16	50	18	1		8		123	9	33	6
Rockdale		1	1	1					3			
Schley	1	1	1	2					5			
Screven	1	1	4	4					10		1	
Seminole			5	1					6		2	
Spalding	2	3	9	4			2		18	2	4	
Stephens	1		4	5					10		3	
Stewart	1	1	1	4					7			
Sumter	3		8	3		1			14	1	3	
Talbot			2	1					3		1	
Taliaferro			2						2			
Tattnall	1		1	5					7			
Taylor			3						3		2	
Telfair		2	6	1					9		3	
Terrell	1		3	3			1		7	1	3	
Thomas	2	2	12	9					25		5	
Tift	3		5	4				1	12	1	8	
Toombs		2	5	2					9		1	
Towns				3					3			
Treutlen			2						2		1	
Troup	1	2	22	6			1		31	1	9	1
Turner			5	2					7			
Twiggs			1	1					2			
Union			1	3					4			
Upson	2	1	6	3					12		2	
Walker	5	3	4	4					16		3	
Walton		1	4	5					10		3	
Ware	1	2	13	3			1		19	1		
Warren		1	3						3			
Washington	1	1	7	5			1		14	1	2	1
Wayne	2		3	1					6		2	
Webster				1					1			
Wheeler	1		1	2					4			
White			2						2			
Whitfield	2	1	4	8				2	15	2	4	
Wilcox	2		3	1					6			
Wilkes	1		3	3				1	7	1	1	
Wilkinson		4	1						5			
Worth	1		4	3					8			
GRAND TOTAL	256	209	1036	546	8	14	80	21	2054	116	479	64

STATE MEDICAL COMMITTEE

W. A. SELMAN, M.D., *Chairman*EDGAR D. SHANKS, M.D., *Vice-Chairman*JNO. B. FITTS, M.D., *Committeeman*NORMA PRITCHARD, *Secretary*

(All of Atlanta)

FACTS ABOUT RABIES FOR THE PHYSICIAN

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Rabies is a specific virus infection involving the nervous system to which all warm blooded animals, including man, are susceptible. The actual incidence of the disease in humans is exceedingly low. In Georgia during the past 21 years (1921-1941, inclusive), 65 humans died of rabies, an average of 3.1 deaths per year. However, during this same period the Division of Laboratories of the Georgia Department of Public Health found evidence of rabies in 9,284 animals examined, an average of 442.1 per annum. This, of course, does not indicate the actual prevalence of rabid animals in Georgia since we know that many were not submitted for examination. During this same period antirabic treatment was administered as a prophylactic to 48,065 persons. This is an average of 2,288.8 treatments per year! The problem confronting the physician is succinctly presented by Denison¹, who states:

"In epidemic areas the attitude of the public is a real handicap to the medical adviser, for there is probably no disease about which the public is more misinformed. The fears, horrors and superstitions of the exposed individual, magnified by a superabundance of bad advice obtained from well meaning friends, often produce a state of panic before a physician is reached. Circumstances of exposure so infinitely remote as to make the possibilities of infection ridiculous and unworthy of even momentary consideration often cause such extreme mental anguish that nothing short of vaccine treatment can prevent nervous collapse of the individual. 'Undue apprehension' is probably as common a symptom among the many recently exposed persons as it is among the very few who develop the disease clinically. Under such circumstances the individual is often unable or unwilling to accept medical advice and insists on vaccine treatment, while the physician too often fails to maintain a professional attitude and allows himself to be influenced by the undue apprehension of the patient."

Hence many needless and safely avoidable treatments are given each year.

The following brief facts about rabies are presented to aid the physicians of Georgia in the judicious disposition of cases of animal bites.

1. *Disposition of the Biting Animal*—While all warm blooded animals are subject to rabies, the disease is most prevalent among dogs and cats. In a series of 7,003 animals found rabid by the State Department of Public Health Laboratories 92 per cent were dogs and 6 per cent cats. Since the rabid dog is the animal to which most humans are exposed, the proper control and disposition of this animal is paramount, not only in controlling the disease, but in disposing of problems of human exposure.

One of the cardinal rules in respect to this problem is to *never kill the biting dog unless absolutely necessary*. The brain of an animal killed in the incipient stage of rabies often may fail to show any evidence of the disease. In our experience approximately 11 per cent of the brains of rabid animals, including both those killed and those dying naturally, on microscopic examination fail to show Negri bodies, which are the pathognomonic lesions of the disease.

The biting animal should be securely confined and kept under observation for a period of one week from the date of biting. If it shows no change in its condition and remains alive for one week, this proves conclusively that it was not in the infectious stage of rabies at the time of biting, and consequently that antirabic treatment is not indicated for those exposed. If it is in the incipient stage of rabies it will develop definite characteristic symptoms, and will *die* or be in a dying condition within a period of one week. If the animal dies or, through necessity is killed, the head should be packed in ice and expressed, or delivered to the laboratory for examination.

2. *When to begin antirabic treatment*—The first consideration of the physician consulted by a patient bitten by an animal is the local treatment of the wound. This should be the same as for wounds of any other origin. It is our belief that there is

insufficient evidence to support the practice of cauterization as a rabies prophylactic either with fuming nitric acid or any other cauterizing agent.

The physician next has the problem of deciding whether antirabic treatment should be immediately instituted, or whether it can be delayed. This decision should depend on such factors as (1) the location and severity of the wounds; (2) the circumstances under which the biting occurred, and (3) the probability of the biting animal being rabid.

In the case of severe or multiple lacerations, especially those about the head or neck, antirabic treatment should be instituted pending observation of the biting animal. Treatment can be discontinued after three or four days if the biting animal remains normal. However, observation of the animal should be continued for the full week of observation. Likewise antirabic treatment should be started in all cases where the biting animal presents suggestive symptoms, or when the wounds are made by a stray animal that cannot be located.

The institution of antirabic treatment for all other exposures, including actual bites on the extremities, or through the clothing, or scratches, can safely be deferred pending observation of the animal, or receipt of the laboratory report. If the report is positive, antirabic treatment should be continued or begun. If negative, or unsatisfactory, the animal history or clinical symptoms must be taken into consideration in reaching a decision both as to diagnosis and as to treatment.

3. *Information to be given when ordering antirabic treatment*—Antirabic treatment may be obtained from the central laboratory of the State Department of Public Health in Atlanta, or from one of the branch laboratories at Waycross and Albany. Four types of treatment are distributed: (1) precautionary, (2) mild, (3) intensive, (4) drastic. The type treatment to be given depends on the nature and severity of the exposure. It is important, therefore, that the physician in ordering treatment submit information as to the number of patients

to be treated, the location and severity of the wounds, and the status of the biting animal. With these facts at hand, the laboratory can help the physician to determine the type of treatment indicated. Treatment should be ordered by telegraph or telephone to expedite prompt delivery.

4. *When antirabic treatment is indicated*—Treatment is always advisable for actual bites, or scratches made by the teeth or claws of a rabid or suspicious animal. Other exposures, such as the contamination of pre-existent abrasions with the saliva, may or may not warrant treatment. The possibility of man becoming infected with rabies from any exposure other than actual penetration of the skin and flesh by the teeth of the rabid animal is exceedingly remote. Denison's¹ opinion, in which we concur, is that "such exposure assumes the importance of a bite only if there is some abrading force to carry the saliva into the wound. The wound itself is of importance only if it was of sufficient size to have been easily noticed, and provided it had been made on the day of the exposure to the animal. It is not felt that the mere handling of rabid animals with fresh open cuts on exposed parts is important unless there is direct contamination with saliva, and unless such contact is known to have occurred, treatment is not advised." Treatment is also advisable for infants and children too young to give accurate information regarding possible exposures. Rarely it may be advisable to administer treatment to highly nervous individuals or to those having a definite rabies psychosis.

5. *When treatment is not indicated*—The following includes some of the "exposures" reported to the State Department of Public Health for which treatment is definitely not indicated: (1) contamination of old cuts; (2) "friction bruises" through clothing in which the skin is definitely broken, but the clothing is neither torn nor penetrated; (3) handling, eating after, sleeping with rabid animals, or other similar exposure; (4) cleaning of drinking or food vessels used by rabid animals; (5) drinking milk of rabid cows; (6) drenching of rabid cows except when fresh open

abrasions are directly contaminated by the saliva; (7) bites of any animal remaining normal seven days from date of biting; (8) any exposure to a nonrabid animal just bitten by a rabid animal; (9) any exposure to a case of human rabies other than an actual bite, or direct contamination of fresh open wounds with fresh saliva; (10) handling bedding of rabid animal; (11) treating wounds made by rabid animal; (12) handling chain or rope with which rabid animal was tied; (13) getting saliva from rabid animal on hands, but either having no cuts or scratches, or having "scabbed over" sores; (14) getting blood on hands while decapitating rabid animal; (15) rat bites.

6. *Complications following antirabic treatment*—Ill effects from antirabic treatment are, as a rule, of minor importance. Local irritations and physical manifestations may appear which are seldom of serious consequence. More rarely treatment paralysis may develop during or immediately after completion of treatment. The most severe form of paralysis encountered is that of the ascending Landry type. In a series of 48,065 treatments distributed by the Georgia Department of Public Health four cases of treatment paralysis have been recorded. Two of these were fatal. Three of the four occurred in persons who had previously taken antirabic treatment. In none of these four cases was there history of actual bite by a rabid animal.

The realization that treatment paralysis may result should act as a deterrent to the indiscriminate administration of antirabic vaccine. Assuredly the danger of paralysis is greater than that of any exposure other than an actual bite. As Sellers² states it "Treatment paralysis while rare occurs more frequently than does rabies in persons not actually bitten. If physicians would bear these facts in mind, they would take a firmer stand in advising against treatment of indirect and remote exposures."

REFERENCES

1. Denison, G. A., and Dowling, J. D.: Rabies in Birmingham, Alabama, *J. A. M. A.* vol. 113 (July 29) 1939.
2. Sellers, T. F.: Antirabic Treatment, *J. M. A. Georgia* 28: 298-299 (July) 1939.

REPORT ON STUDIES ON PASSIVE IMMUNITY AND ACTIVE IMMUNITY TO TETANUS

Information on several important questions concerning the treatment and prevention of tetanus, particularly as regards the duration of passive immunity and its effects on active immunity, is reported in *The Journal of the American Medical Association* for April 10 by Jean V. Cooke, M.D., St. Louis, and F. G. Jones, Indianapolis. Their report is based on observations on the immunization of children with clinical tetanus and of normal children. Passive immunity is that which depends on defensive factors not originating in the individual protected but which is acquired by injection of immune substances produced elsewhere. Active immunity is that which is obtained by the active participation of a person's own body in producing immune substances—antibodies or antitoxins.

From their study of active and passive tetanus immunity on 39 children on whom more than four hundred tetanus antitoxin measurements were done, the two authors found that although passive immunization with the usual prophylactic dose of 1,500 units or less produces an immunity of only approximately three weeks, larger doses cause a much more prolonged immunity.

In 4 children with clinical tetanus it was observed that antitoxic immunity did not follow recovery from the disease.

The two authors report that "A passive immunity [to tetanus] can be converted into an active immunity by toxoid injections [a toxoid is a toxin, the poisonous qualities of which have been destroyed but which is still capable of inciting the production within the body of protective substances against that specific toxin]. It was observed, however, that this transition can be produced as readily and as rapidly when the initial active toxoid injection is delayed several weeks as when it is started simultaneously with the antitoxin injection [which creates passive immunity]. After passive immunization with 10,000 units of antitoxin and with toxoid injections at two week intervals an active immunity developed in from eight to twelve weeks regardless of whether the first toxoid was given simultaneously with the antitoxin or whether it was delayed two, four or six weeks.

The authors say that their observations tend to refute the value of simultaneous injection of antitoxin and toxoids in the production of active tetanus immunity and show that a delay of active immunization from two to four weeks following the antitoxin injection is indicated.

THE PRESIDENT'S PAGE

THE PHARMACIST'S PART IN THE VENEREAL CONTROL PROBLEM

The pharmacist's part in the venereal control program should be of great importance because he sees most young venereal sufferers in the early stages of the diseases. More important still, the pharmacist can help prevent these diseases.

There is a plan outlined in a brochure now in operation in Pennsylvania, worked out by a committee composed of leading physicians, pharmacists, and a doctor of science. The pharmacist is advised to help in prevention through sales of only top grade prophylactic kits at fair prices and, when necessary, call on the city or state venereal control program for free aid.

The pharmacist could render splendid service by insisting that infected young men visit physicians or clinics instead of using some worthless remedies which they asked to purchase. Here a frank statement should be made to the effect that delay might mean serious complications resulting in much suffering and even death.

The pharmacist can aid greatly in preventing the spread of the venereal infection, for he is often in position to aid promptly in tracing them to their sources, thus stopping the spread. He can advertise through the press and radio about prophylaxis and early adequate treatments. Surely these measures now in use in Pennsylvania could be used to advantage in Georgia where we must admit methods in use have proven inadequate.

It is no longer admitted that venereal diseases can be controlled in the old way of secrecy. Nor can doctors and the health departments alone do so. Many other agencies and groups can assist, none more effectively than the pharmacists whose places of business should become public health centers throughout Georgia. Let's adopt the Pennsylvania plan.

* * * * *

This is my final message for the President's Page. It has been my desire to contribute something worthwhile in each issue during the past year, but in this I do not claim to have succeeded. Some readers have written me either agreeing or disagreeing with some of my statements, which I have appreciated very much.

Due to the war and its effects I have not visited throughout the State as much as I would have under normal conditions. Then, too, some of the districts cancelled their meetings. I hope that all districts will hold semi-annual meetings because this is active support of organized medicine. These meetings are well planned and the attendance is usually good. They are particularly helpful in the rural areas where county medical societies are so small until they do not have regular monthly meetings.

Our beloved President-Elect, Dr. W. A. Selman, will soon take charge. He deserves our wholehearted support which I am sure we will give to him individually and I hope collectively, the source of most worthwhile assistance.

J. A. REDFEARN, M.D.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

APRIL, 1943

ATLANTA INVITES YOU

On behalf of Fulton County Medical Society and the City of Atlanta, I extend to the members of the Medical Association of Georgia an invitation to Atlanta May 11-14. It is our pleasure to entertain this distinguished organization every four years. These occasions are looked forward to by your host with great anticipation. The General Committee on Arrangements is on the job leaving nothing undone which will contribute to the pleasure and convenience of our guests.

This will be the ninety-fourth annual session. With a large number of the medical profession in our State in the armed services, we do not anticipate as large attendance as usual. But we feel it is the responsibility of the medical profession to carry on, to keep ourselves apprised of the latest scientific advances in medicine in order to render the highest type of medical service. There is something stimulating in meeting with fellow members who have like interests and problems. There has never been a time when the annual session was not held and we hope to continue this record. We do not know what another year may bring but while we can still get together it is hoped that all members will make the effort to come.

The exigencies of war have touched us in many ways. We probably will curtail much of our heretofore elaborate program of entertainment, not because we want to but because of necessity. But our welcome will be as warm and our hospitality as genuine. Our entertainment will be ample and enjoyable.

The Biltmore Hotel will serve as headquarters. Scientific and technical exhibits will be on the main lobby floor. These and the splendid program will be interesting and informative. Some of the meetings will

be held at the Academy of Medicine, and much of the entertainment.

Atlanta, the capital of the Empire State of the South, is rich in historic interest and modern entertainment. The doctors and their wives will find many places of interest. The beautiful gardens of our city will attract the ladies; our modern hospitals and medical schools will attract the physicians. The theaters, hotels, golf courses and other places of amusement will be added entertainment. Our modern hotels will furnish ample accommodations.

Fulton County Medical Society and Atlanta await your arrival and extend you a most cordial invitation.

GEORGE W. FULLER, M.D., *President*,
Fulton County Medical Society.

IMMEDIATE PRE- AND POSTOPERATIVE MANAGEMENT OF GYN- COLOGIC OPERATIONS

After the patient has been examined and the operation decided upon, it is essential that the blood, if low, be replenished by transfusions to bring the hemoglobin up to 11 or 12 grams per 100 cc. and the red count to 4,000,000 or more. As precaution against a long, difficult and bloody operation, which cannot always be foreseen, it is wise to have available one to three pints of matched citrated blood for transfusion during the operation. In regard to the gastro-intestinal tract, the presence of impacted fecal masses in the large bowel should be determined, and, if present, they should be evacuated. If the procedure involves the removal of the cervix, and this seems to be generally the trend in case of hysterectomy, the vaginal vault and perineum ought to be washed with soap and water for a length of time equal to that applied to the operator's hands (ten minutes). Coincidental use of a hollow retractor to bathe the vagina with sterile solution is a distinct aid. The vagina is then dried and the operator's favorite antiseptic applied to all surfaces. If the operation is not vaginal, a sterile gauze wick is inserted into the vagina up to the cervix and allowed to remain until after the operation. A tight pack might interfere with the identification of the cervical stump

if the operation should be abdominal total hysterectomy. Some attention ought to be directed to the position of the patient's body upon the operating table to prevent nerve injury to the lower back, legs and especially to the shoulder and arm used for administering fluids intravenously. Those injuries are far more common and disabling than is generally recognized.

Points of note in the postoperative treatment include the use of buttons in the closure of the abdominal wound. This helped reduce evisceration to nil in 350 consecutive laparotomies. Elevation of the foot of the patient's bed, six or eight inches for four days, is suggested to reduce the incidence of massive embolus from the iliac veins. The basis for this is that if the veins are kept empty no embolus can form. Likewise the patient should be encouraged to turn from side-to-side and to exercise her thighs during the convalescence. No embolus occurred in approximately 500 consecutive gynecologic operations treated in this way. The single untoward result from the "head low" position was development of a subdiaphragmatic abscess forty-eight hours after vaginal hysterectomy.

The care of the urinary bladder is one of attention to proper drainage of the urine to prevent residual stagnation and infection. This may be accomplished either by a retention catheter or by sterile technic catheterization every eight hours until spontaneous voiding. Even then catheterization after urination should be done daily until residual urine amounts to no more than one ounce.

Fluids may be administered intravenously continually throughout the operation to make up for loss from perspiration during the operation and from failure later to retain fluids by mouth. In those cases in which large blood vessels have been ligated, it is a good rule to have the blood pressure recorded every half hour for twelve hours or so. If it goes down to one-third of the patient's usual systolic pressure, a blood transfusion of 500 cc. should be given. Following a rise produced by the transfusion, if the pressure again drops to dangerous levels, it is to be considered *prima facie*

evidence of intra-abdominal hemorrhage, and no time should be wasted in opening the abdominal cavity and tying the bleeding parts.

A reasonably good technic accompanied by accurate hemostasis in addition to observance of the above suggestions ought to prevent a mortality of over 0.5 per cent in total hysterectomies, abdominal or vaginal.

RICHARD TORPIN, M.D.

DOCTORS ASKED TO HELP IN SURVEY TO LOCATE ALL GRADUATE NURSES

The physicians of the nation are being urged to cooperate in a survey being made to locate all graduate registered nurses in the country, *The Journal of the American Medical Association* points out in its March 13 issue. *The Journal* says:

"The National Nursing Council for War Service, which represents the voluntary, professional nursing organizations in the total war program, urges every physician in the country to lend his help and support to the current nationwide effort to locate all graduate registered nurses. A second national inventory of nurses, a follow-up on the inventory of 1941, was begun in January 1943. To date (February 25) responses from nearly 50 per cent of the nurses in the country have been reported. To help bring in responses from the remaining 50 per cent, physicians are asked to:

"1. Encourage the nurses who may be associated with them, especially the nurses in their employ, to respond without delay to the postcard questionnaires sent to them by the special state agent of the United States Public Health Service in January of this year.

"2. Urge nurses they may know who have not received questionnaires (many physicians' wives who are nurses have failed to receive them) to request cards from the special agent in their states. If they do not know the agent's address, the National Nursing Council for War Service, 1790 Broadway, New York, will forward their requests.

"Information provided by the inventory will furnish the basis of operation for the nursing supply and distribution unit now being formed in the War Manpower Commission. The purpose of the unit as the name implies, is to determine the availability of nurses for local, state and national emergencies and to aid in the equitable distribution of nurses, so that the nursing needs of the armed forces and of civilians will be adequately met. This distribution will be on a voluntary, not a compulsory, basis. The inventory is being conducted by the United States Public Health Service and has the approval of the National Nursing Council for War Service, the War Manpower Commission and the Health and Medical Committee, Office of Defense Health and Welfare Services, Federal Security Agency."



BILTMORE HOTEL, Atlanta

The Biltmore Hotel will be headquarters for the Ninety-Fourth Annual Session of the Medical Association of Georgia, May 11-14, 1943.

All sessions of the Association will be held at the Biltmore Hotel unless otherwise stated in the program.

Meetings of the Woman's Auxiliary will be held at the Academy of Medicine, 875 West Peachtree Street, N.E.



ACADEMY OF MEDICINE OF THE FULTON COUNTY MEDICAL SOCIETY
875 West Peachtree Street, N.E., Atlanta

Erected in 1941 by the Fulton County Medical Society at a cost of approximately \$160,000, the Academy of Medicine has become the center of medical activities in Atlanta. The Academy houses temporarily the offices of the Medical Association of Georgia and the Fourth Corps Area for the Procurement and Assignment of Physicians, Dentists and Veterinarians.



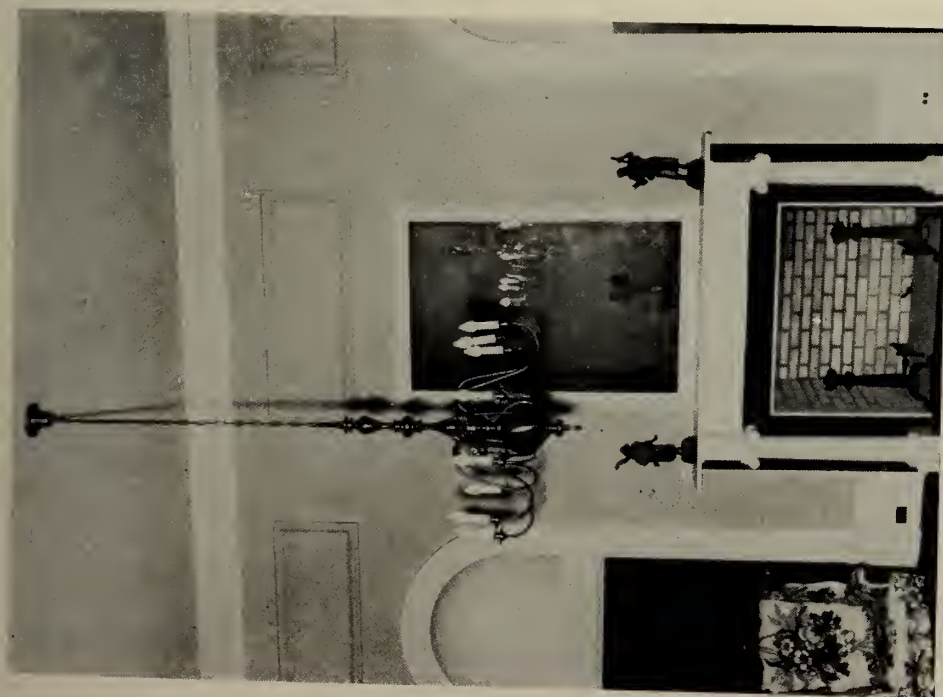
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The officers of the Medical Association of Georgia urge its members to attend the Ninety-Fourth Annual Session to be held at the Biltmore Hotel, Atlanta, May 11-14, 1943.

The House of Delegates will convene Tuesday, May 11, at 2:00 P.M., Central War Time, at the Biltmore Hotel. The Scientific Session will open Wednesday, May 12, at 8:30 A.M.



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MEDICAL ASSOCIATION OF GEORGIA
NINETY-FOURTH ANNUAL SESSION
Atlanta

May 11, 12, 13, 14, 1943

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Olin S. Weaver.....	Macon
A. S. Bacon.....	Albany
J. Lon King.....	Macon

Medical Preparedness

W. A. Selman, Chairman.....	Atlanta
Jno. B. Fitts.....	Atlanta
Edgar D. Shanks, Secretary-Treasurer.....	Atlanta

Post-Graduate Study

G. Lombard Kelly, Chairman.....	Augusta
Russell H. Oppenheimer.....	Emory University
Richard Torpin.....	Augusta
Olin S. Cofer.....	Atlanta
H. C. Sauls.....	Atlanta
Roy A. Hill.....	Thomasville
W. F. Reavis.....	Waycross
S. P. Kenyon.....	Dawson
R. D. McKenzie.....	Albany

Georgia State Medical Association (Negro)

M. T. Harrison, Chairman.....	Atlanta
W. E. Storey.....	Columbus
R. C. Maddox.....	Rome
J. F. Hanson.....	Macon
H. H. Allen.....	Decatur

Pediatrics

W. W. Anderson, Chairman.....	Atlanta
A. J. Waring.....	Savannah
Frank Schley.....	Columbus
M. M. McCord.....	Rome

Appendicitis

T. C. Davison, Chairman.....	Atlanta
J. K. Quattlebaum.....	Savannah
Charley K. Wall.....	Thomasville
J. C. Patterson.....	Cuthbert
Fred F. Rudder.....	Atlanta
F. B. Rawlings.....	Sandersville

B. Lester Harbin.....	Rome
Kenneth McCullough.....	Waycross
R. L. Rogers.....	Gainesville
S. D. Brown.....	Royston
Enoch Callaway.....	LaGrange
W. M. Field.....	Albany
S. E. Sanchez.....	Barwick

Awards

Wm. R. Dancy, Chairman.....	Savannah
T. S. Gatewood.....	Americus
Mather M. McCord.....	Rome
Ralph H. Chaney.....	Augusta
W. F. Reavis.....	Waycross
T. C. Williams.....	Valdosta

Maternal Mortality and Infant Deaths

H. F. Sharpley, Jr., Chairman.....	Savannah
C. B. Upshaw.....	Atlanta
Richard Torpin.....	Augusta
I. M. Lucas.....	Albany
David M. Wolfe.....	Atlanta

National Youth Administration

C. L. Ayers, Chairman.....	Toccoa
Shelley C. Davis.....	Atlanta
T. F. Abercrombie.....	Atlanta
M. C. Pruitt.....	Atlanta
Frank E. Thomas.....	Albany

FRATERNAL DELEGATES TO OTHER STATE MEETINGS

Alabama: J. R. Paulk, Moultrie; Don F. Cathcart, Atlanta; and John E. Walker, Columbus.
Florida: E. F. Wahl, Thomasville; W. F. Reavis, Waycross; and M. E. Winchester, Brunswick.
North Carolina: Allen H. Bunce, Atlanta; Pratt Cheek, Gainesville; and C. M. Sharp, Alto.
South Carolina: G. Lombard Kelly, Augusta; Ralph H. Chaney, Augusta; and J. Cox Wall, Eastman.
Tennessee: Z. V. Johnston, Calhoun; S. A. Kirkland, Atlanta; and W. F. Wells, Atlanta.

FRATERNAL DELEGATES FROM OTHER STATES

Florida: Julius C. Davis, Quincy, and Walter C. Jones, Miami.
North Carolina: R. B. McKnight, Charlotte; J. W. Tankersley, Greensboro, and Ben F. Royal, Morehead City.
Tennessee: C. M. Hamilton, Nashville; Stewart Lawwill, Chattanooga, and Robert B. Wood, Knoxville.

STATE BOARD OF MEDICAL EXAMINERS

L. G. Neal, President.....	Cleveland
Cleveland Thompson, Vice-President.....	Millen
Steve P. Kenyon.....	Dawson
Hulett H. Askew.....	Atlanta
M. B. Copeloff.....	Atlanta
J. W. Palmer.....	Ailey
G. A. Ward.....	Elberton
H. G. Huey.....	Homerville
F. C. Holden.....	Atlanta
W. K. Smith.....	Pembroke

STATE BOARD OF HEALTH*

First District: J. C. Metts, Savannah, Sept. 1, 1945.
Second District: C. K. Sharp, Arlington, Sept. 1, 1945.
Third District: Mr. R. C. Ellis, Americus, Sept. 1, 1948.
Fourth District: J. A. Corry, Barnesville, Sept. 1, 1943.
Fifth District: Mr. Robt. F. Maddox, Atlanta, Sept. 1, 1948.
Sixth District: C. L. Ridley, Macon, Sept. 1, 1944.
Seventh District: W. P. Harbin, Jr., Rome, Sept. 1, 1944.
Eighth District: Henry W. Clements, Adel, Sept. 1, 1944.
Ninth District: Robt. L. Rogers, Gainesville, Sept. 1, 1945.
Tenth District: D. N. Thompson, Elberton, Sept. 1, 1943.

*Nominated by their respective district medical societies and appointed for six year terms.

STATE OF GEORGIA AT LARGE

Georgia Dental Association†

W. K. White, Savannah, Sept. 1, 1945.
J. G. Williams, Atlanta, Sept. 1, 1945.

Georgia Pharmaceutical Association†

M. D. Hodges, Marietta, Sept. 1, 1941.
John W. White, Thomasville, Sept. 1, 1947.

†Nominated by their respective associations.

DELEGATES TO THE 1943 SESSION

<i>Counties</i>	<i>Names and Addresses</i>
Appling.....	
Baldwin.....	Hubert M. Olrick, Milledgeville
Bartow.....	W. E. Wofford, Cartersville
Ben Hill.....	
Bibb.....	A. R. Rozar, Macon
	J. B. Kay, Byron
Blue Ridge Society.....	
Brooks.....	
Bulloch-Candler-Evans.....	
Burke.....	
Butts.....	
Carroll.....	
Chatham (Georgia Medical Society)	
	C. F. Holton, Savannah
	Ruskin King, Savannah
Chattooga.....	
Cherokee.....	C. J. Roper, Jasper
Clarke-Madison-Oconee.....	W. D. Gholston, Danielsville
Clayton-Fayette.....	
Cobb.....	F. P. Lindley, Powder Springs
Coffee.....	
Colquitt.....	J. B. Woodall, Moultrie
Coweta.....	
Crisp.....	P. L. Williams, Cordele
Decatur-Seminole.....	R. F. Wheat, Bainbridge
DeKalb.....	
Dooley.....	
Dougherty.....	J. M. Barnett, Albany
Douglas.....	
Elbert.....	George A. Ward, Elberton
Emanuel.....	J. H. Chandler, Swainsboro
Floyd.....	B. V. Elmore, Rome
Forsyth.....	Marcus Mashburn, Cumming

Franklin	
Fulton.....	Geo. W. Fuller, Atlanta
	Ben H. Clifton, Atlanta
	W. W. Anderson, Atlanta
	H. H. Askew, Atlanta
	Don F. Cathcart, Atlanta
	Eustace A. Allen, Atlanta
	J. R. Childs, Atlanta
	Shelley C. Davis, Atlanta
	B. L. Shackelford, Atlanta
Glynn	
Gordon.....	W. D. Hall, Calhoun
Grady	
Greene.....	W. R. Richards, Greensboro
Gwinnett	W. W. Puett, Norcross
Habersham.....	T. H. Brabson, Cornelia
Hall.....	C. G. Butler, Gainesville
Hancock.....	C. S. Jernigan, Sparta
Haralson.....	O. D. King, Bremen
Hart	
Henry.....	R. V. Brandon, McDonough
Houston-Peach	
Jackson-Barrow.....	W. T. Randolph, Winder
Jasper	
Jefferson.....	John R. Lewis, Louisville
Jenkins.....	C. Thompson, Millen
Lamar.....	J. H. Jackson, Barnesville
Laurens.....	R. G. Ferrell, Jr., Dublin
Macon	
McDuffie.....	F. N. Gibson, Thomson
Meriwether.....	R. B. Gilhert, Greenville
Mitchell.....	J. W. Ward, Baconton
Monroe	
Montgomery.....	H. C. Sharp, Alston
Morgan	
Muscogee	
Newton.....	W. D. Travis, Covington
Ocmulgee Society (Bleckley- Dodge-Pulaski)	A. R. Bush, Hawkinsville
Polk	
Rabun	
Randolph.....	J. C. Tidmore, Dawson
Richmond.....	R. C. McGahee, Augusta
	D. R. Thomas, Jr., Augusta
Rockdale	
Screven	
South Georgia Society (Berrien-Clinch-Cook- Echols-Lanier-Lowndes).....	W. W. Turner, Nashville
Spalding.....	Geo. L. Walker, Griffin
Stephens	
Sumter.....	B. T. Wise, Americus
Tattnall.....	L. V. Strickland, Cobbtown
Taylor.....	R. C. Montgomery, Butler
Telfair	
Thomas	
Tift	
Toombs	
Tri Society (Calhoun-Early-Miller).....	
Tri Society (Liberty-Long-McIntosh).....	
Troup.....	C. O. Williams, West Point
Turner	
Upson	
Walker-Catoosa-Dade	

Walton.....	Chas. S. Floyd, Loganville
Ware.....	W. F. Reavis, Waycross
Warren.....	F. L. Ware, Warrenton
Washington	
Wayne	
Whitfield.....	Trammell Starr, Dalton
Wilcox	
Wilkes.....	H. L. Cheves, Union Point
Worth	

DISTRICT SOCIETIES

OFFICERS AND MEETING DATES

First District

President—J. M. Byne, Jr., Waynesboro
 Secretary—Wm. D. Wilson, Savannah
 Third Wednesdays—March and July

Second District

President—W. S. Cook, Albany
 Secretary—J. C. Brim, Pelham
 Second Thursdays—April and October

Third District

President—R. C. Pendergrass, Americus
 Secretary—J. L. Gallemore, Perry
 Third Wednesday in June and Second Wednesday in
 November

Fourth District

President—J. H. Jackson, Barnesville
 Secretary—M. M. Head, Zebulon
 Second Wednesdays—February and August

Fifth District

President—Jeff L. Richardson, Atlanta
 Secretary—Geo. A. Williams, Atlanta
 No set dates

Sixth District

President—C. S. Jernigan, Sparta
 Secretary—A. M. Phillips, Macon
 Last Wednesday in June—First Wednesday in December

Seventh District

President—J. M. McGehee, Cedartown
 Secretary—W. D. Hall, Calhoun
 First Wednesday in April and last Wednesday in Sep-
 tember

Eighth District

President—T. V. Willis, Brunswick
 Secretary—Gordon T. Crozier, Valdosta
 Second Tuesdays—April and October

Ninth District

President—S. T. Ross, Winder
 Secretary—Pratt Cheek, Gainesville
 Third Wednesdays—March and September
 (No meetings to be held during the emergency)

Tenth District

President—Stewart D. Brown, Royston
 Secretary—J. Z. McDaniel, Augusta
 Second Wednesdays—February and August

ENTERTAINMENTS

TUESDAY, MAY 11, 5 to 6:30 P.M.

Academy of Medicine

Dr. and Mrs. Edgar H. Greene

WEDNESDAY, MAY 12, 1:45 P.M.

Crawford W. Long Memorial Hospital

Annual luncheon of the Georgia Radiological Society.

WEDNESDAY, MAY 12, 5 to 6:30 P.M.

Academy of Medicine

Dr. and Mrs. W. A. Selman

WEDNESDAY, MAY 12, 6:30 P.M.

Biltmore Hotel

Annual dinner of the alumni of Emory University School of Medicine. Fred R. Minnich, Chairman.

Annual dinner of the alumni of the University of Georgia School of Medicine. B. L. Shackelford, Chairman.

THURSDAY, MAY 13, 12:30 P.M.

Biltmore Hotel

Annual luncheon of the Georgia Pediatric Society

THURSDAY, MAY 13, 6:30 P. M.

Academy of Medicine

Buffet Supper

ANNOUNCEMENTS

Meetings will be held in the Biltmore Hotel.

Be sure to go to the Registration Desk immediately after your arrival, present your 1943 membership card, register and procure a badge.

Discussion of papers is open to all members and guests of the Association; it is not limited to those named on the program.

On arising to discuss a paper the speaker will please announce his name and address clearly for the benefit of the Association and the stenographer.

Meetings will be called to order at the hour fixed on the program. It is especially desired that the members be prompt in their attendance.

All manuscript should be typewritten, double spaced, and on one side of the paper only. Papers must be handed to the Secretary immediately after being read.

IMPORTANT NOTICE

Delegates must present written credentials to the Committee on Credentials from the House of Delegates to secure delegates' badges.

Members may not take part in the proceedings until they have registered and procured official badges.

PUBLIC MEETINGS

Biltmore Hotel, Atlanta

WEDNESDAY, MAY 12, 8:30 A.M.

Central War Time

Opening Meeting

WEDNESDAY, MAY 12, 8:00 P.M.

Central War Time

Presentation of the President's Gold Key to James Augustus Redfearn, Albany, by C. K. Sharp, Arlington.

THURSDAY, MAY 13, 12:00 Noon

Central War Time

Biltmore Hotel

President's Address

James Augustus Redfearn, Albany

The President's Address will be at an open session to which the public and visitors are invited.

MEMORIAL EXERCISES

William R. Dancy, Savannah

Chairman, Committee on Necrology

MEETINGS OF THE HOUSE OF DELEGATES

Biltmore Hotel

TUESDAY, MAY 11, 2:00 P.M.

Central War Time

First meeting of the House of Delegates

1. Call to order by the President
2. Roll Call
3. Appointment of Reference Committees
4. Reports of officers:
 - President
 - President-Elect
 - Vice-Presidents
 - Parliamentarian
 - Secretary-Treasurer: Financial report
 - Reports of Delegates to the A.M.A.
5. Reports of committees:
 - Scientific Work
 - Public Policy and Legislation
 - Arrangements
 - Medical Defense
 - Hospitals
 - Necrology
 - Cancer Commission
 - History
 - Abner Wellborn Calhoun Lectureship
 - Awards
 - Advisory—State Board of Health
 - Advisory—Woman's Auxiliary
 - Medical Economics
 - Orthopedics—Advisory, State Department of Public Welfare
 - Ophthalmology—Advisory, State Department of Public Welfare
 - Syphilis
 - Tuberculosis
 - Special Committees
6. Unfinished business
7. New business

TUESDAY, MAY 11, 8:00 P.M.

Central War Time

Second Meeting of the House of Delegates

1. Call to order by the President.
2. Reading of minutes
3. Announcements
4. Report of President of Woman's Auxiliary
5. Reports of committees continued
6. Reports of Fraternal Delegates
7. Unfinished business
8. New business

FRIDAY, MAY 14, 8:00 A.M.

Central War Time
Biltmore Hotel

Third Meeting of the House of Delegates

1. Call to order by the President
2. Reading of minutes
3. Reports of committees
4. Unfinished business
5. New business

OFFICIAL REPORTER

Miss Winifred H. McLean.....Gastonia, N. C.

MEETING OF THE COUNCIL

TUESDAY, MAY 11, 5:00 P.M.

Central War Time
Biltmore Hotel

The first meeting of the Council will be held in the Biltmore Hotel, Tuesday, May 11, following the afternoon session of the House of Delegates. Each Councilor will render a report of conditions in each county of his district. Other meetings of the Council will be held on the call of the chairman.

WEDNESDAY, MAY 12, 8:30 A.M.

Central War Time
Biltmore Hotel
Atlanta

SCIENTIFIC PROGRAM

The papers for each meeting must be read as scheduled on the program.

Call to order by the President, James Augustus Redfearn, Albany.

Invocation

Marion McH. Hull, Atlanta

Address of Welcome

George W. Fuller, Atlanta

President, Fulton County Medical Society

Response to Address of Welcome

J. B. Kay, Byron

SCIENTIFIC PROGRAM

The time allotted to each paper, which INCLUDES the showing of slides or moving pictures, is 12 minutes.

1. Geriatrics in the Present Economic Situation.
A. J. Mooney, Statesboro.
2. Virus Pneumonia.
Chas. B. Fulghum, Milledgeville.
3. The Electrocardiogram: Its Indications and Limitations.
R. Bruce Logue, Major, Medical Corps, Army of the United States, Lawson General Hospital, Atlanta.
4. Pulmonary Edema.
Eugene A. Stead, Jr., Atlanta.
5. Critique of the Use of the Erythrocyte Sedimentation Test in Clinical Medicine.
Chas. Purcell Roberts, Lieutenant, Medical Corps, Navy of the United States, Pensacola, Fla.
To lead the discussion of papers 1, 2, 3, 4 and 5:
J. R. Broderick, Savannah.
L. Harvey Hamff, Atlanta.

6. Symposium on Nutrition Problems.

(a) The Weak Points in the Medical Approach to the Nutrition Problem.

Edwin R. Watson, Atlanta.

(b) Foods in Wartime.

Miss Susan Mathews, Athens.

To lead the discussion:

John B. Fitts, Atlanta.

Ernest F. Wahl, Thomasville.

WEDNESDAY, MAY 12, 12:00 NOON

Central War Time
Biltmore Hotel

ABNER WELLBORN CALHOUN LECTURE

Medical Achievements in This Present War

Ross T. McIntire, Rear Admiral, Medical Corps,
Navy of the United States

Surgeon General, Navy of the United States,
Washington, D. C.

Introduction by James E. Paullin, Atlanta

WEDNESDAY, MAY 12, 2:00 P.M.

Central War Time
Biltmore Hotel

The time allotted to each paper, which INCLUDES the showing of slides or moving pictures, is 12 minutes.

1. Some Problems That Should Be Considered by You.
John R. Lewis, Louisville.
2. Hypertension.
Eustace A. Allen, Atlanta.
To lead the discussion of papers 1 and 2:
J. A. Redfearn, Albany.
Wm. P. Harbin, Jr., Rome.
3. Symposium on Obstetrics and Gynecology.
 - (a) Rural Obstetrics Associated with Office Deliveries.
Richard Torpin, Augusta.
James B. Kay, Byron.
John T. Persall, McRae.
 - (b) Continuous Caudal Analgesia in Normal and Complicated Labor.
Perry P. Volpito, Augusta.
 - (c) Uterine Tone and Pressure and the Effects of Uterine Activity
R. A. Woodbury et al, Augusta.
 - (d) Effects of Oxytocics and Analgesics
Benedict E. Abreu et al, Augusta.
 - (e) Tuberculosis of the Cervix.
John F. Denton, Atlanta.
 - (f) Vaginal Hysterectomy.
Olin S. Cofer, Atlanta.
To lead the discussion:
Geo. A. Holloway, Atlanta.
O. R. Thompson, Macon.
J. R. McCord, Atlanta.

WEDNESDAY, MAY 12, 8:00 P.M.

Central War Time
Biltmore Hotel

Presentation of the President's Gold Key to the

President, James Augustus Redfearn, Albany, by C. K. Sharp, Arlington.

Complications of Acute Coronary Thrombosis

Chauncey Carter Maher, Chicago
Associate Professor of Medicine, Northwestern University
Medical School.

*The Role of the Medical Profession in the
Present War*

James E. Paullin, Atlanta

THURSDAY, MAY 13, 8:30 A.M.

Central War Time
Biltmore Hotel

*The time allotted to each paper, which INCLUDES
the showing of slides or moving pictures, is 12 minutes.*

1. Malignant Lymphoma.
John Funke, Atlanta.
2. Horseshoe Kidney.
Spencer A. Kirkland, Atlanta.
To lead the discussion of papers 1 and 2:
Lee Howard, Savannah.
Max Mass, Macon.
3. Atypical Pneumonia.
Mark S. Dougherty, Jr., Lieutenant Commander,
Medical Corps, Navy of the United States,
Charleston, S. C.
To lead the discussion:
T. F. Sellers, Atlanta.
H. T. Harper, Jr., Augusta.

INTERMISSION FOR 10 MINUTES

*The time allotted to each of the following papers of
guest speakers, all of whom are representing the Wartime
Graduate Medical Meetings, is 40 minutes.*

4. Practical Points in the Diagnosis and Treatment of
Graves' Disease.
James H. Means, Boston, Jackson Professor of
Medicine, Harvard Medical School; Chief of
Medical Service, Massachusetts General Hospital.
5. Traumatic Shock: Its Etiology and Treatment.
Everett Idris Evans, Richmond.
6. The Anemias.
Virgil P. Sydenstricker, Augusta, Professor of
Medicine, University of Georgia School of Medi-
cine.

THURSDAY, MAY 13, 12:00 Noon

Central War Time
Biltmore Hotel

PRESIDENT'S ADDRESS

James Augustus Redfearn, Albany

MEMORIAL EXERCISES

William R. Dancy, Savannah
Chairman, Committee on Necrology

THURSDAY, MAY 13, 2:00 P.M.

Central War Time
Biltmore Hotel

*The time allotted to each paper, which INCLUDES
the showing of slides or moving pictures, is 12 minutes.*

1. The Management of Hyperthyroidism.
Phil E. Roberson, Albany.
2. Further Experience with New Methods for Cholecys-
tectomy.
Lester R. Whitaker, Augusta.
3. The Late Treatment of Burns and Contractures.
J. Hiram Kite, Atlanta.
To lead the discussion of papers 1, 2 and 3:
H. M. McKemie, Albany.
O. H. Weaver, Macon.
4. Symposium on Acute Surgical Problems in the
Abdomen:
 - (a) Acute Appendicitis.
T. C. Davison, Atlanta.
 - (b) Acute Cholecystitis.
Enoch Callaway, LaGrange.
 - (c) Acute Pancreatitis.
J. C. Patterson, Cuthbert.
 - (d) Perforated Peptic Ulcer.
Murl Hagood, Marietta.
 - (e) Acute Intestinal Obstruction.
Chas. H. Richardson, Macon.
 To lead the discussion:
Chas. H. Watt, Thomasville.
Kenneth McCullough, Waycross.
S. D. Brown, Royston.

THURSDAY, MAY 13, 7:30 P.M.

Central War Time
Academy of Medicine
875 West Peachtree Street, N.E.

*The time allotted to each of the following papers of
guest speakers, all of whom are representing the Wartime
Graduate Medical Meetings, is 40 minutes.*

1. Treatment of Severe Burns.
Everett Idris Evans, Richmond.
2. Some Features of Peptic Ulcer.
James H. Means, Boston, Jackson Professor of
Medicine, Harvard Medical School; Chief of
Medical Service, Massachusetts General Hospital.
3. Nutrition in Wartime.
Virgil P. Sydenstricker, Augusta, Professor of
Medicine, University of Georgia School of Medi-
cine.

FRIDAY, MAY 14, 8:30 A.M.

Central War Time
Biltmore Hotel

1. Study of Basal Metabolic Rates and Associated Con-
ditions in a College Group.
Marian E. Fabar, Valdosta.
2. Pneumoperitoneum: A Form of Compression Therapy
in the Treatment of Pulmonary Tuberculosis.
H. E. Crow, Alto.
To lead the discussion of papers 1 and 2:
John E. Walker, Columbus.
C. C. Aven, Atlanta.

3. Madura Foot.
D. R. Venable, Columbus.
Joseph Gaston, Columbus.
4. Treatment of Thrombophlebitis.
Chas. E. Rushin, Atlanta.
To lead the discussion of papers 3 and 4:
K. C. Walden, Waycross.
Fred B. Rawlings, Sandersville.
6. Importance of the Rectal Examination.
A. M. Phillips, Macon.
7. Treatment of Hemorrhoids.
Hulett H. Askew, Atlanta.
8. Differential Points of Diagnosis in Diseases of the Gallbladder and Adjacent Areas.
K. C. Walden, Waycross.
To lead the discussion of papers 6, 7 and 8:
C. F. Holton, Savannah.
M. C. Pruitt, Atlanta.
9. Medical Conservation of Manpower in a Shipyard.
Robt. L. Brown, Brunswick.
To lead the discussion:
Lester M. Petrie, Atlanta.
J. W. Simmons, Brunswick.

FRIDAY, MAY 14, 12:00 Noon

Central War Time

Biltmore Hotel

ELECTION OF OFFICERS

- President-Elect
First Vice-President
Second Vice-President
Delegate to the A.M.A.
Alternate Delegate to the A.M.A.
*Councilors for the Fifth, Sixth, Seventh and Eighth Districts
*Two members of the State Board of Health from the Fourth and Tenth Districts
Selection of Meeting Place for 1944.

*Nominated by their respective district societies.

CONSTITUTION AND BY-LAWS

Chapter II. Section 2. No papers or addresses before the Association, except those of the President and invited essayists, shall occupy more than fifteen minutes in their delivery; and no member shall speak longer than five minutes, nor more than once on any subject, provided that each essayist shall have five minutes in which to close the discussion of his paper.

Chapter VIII. Section 1. The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's Rules of Order, when not in conflict with this Constitution and By-Laws.

Chapter VIII. Section 2. All papers read before the Association shall become its property. Each paper shall be deposited with the Secretary when read, and if this is not done it shall not be published.

No miscellaneous or business matters will be discussed before the scientific meetings, but will be referred to the House of Delegates.

Resolution Adopted 1921

Resolved: That a member who sends in a title of a paper to be placed on the program and is not present to read the paper shall pay the penalty of not having

an opportunity to appear on the program for two years, unless he presents an excuse acceptable to the Committee on Scientific Work.

We are instructed by the President to announce to all essayists that the sessions of the Scientific Program of the Association will begin on time, and that the above regulations of the By-Laws in reference to the program will be strictly enforced.

COMMITTEE ON SCIENTIFIC WORK

Richard Binion, Milledgeville, Chairman.
Mark S. Dougherty, Jr., Atlanta.
B. H. Minchew, Waycross.
Edgar D. Shanks, Atlanta, Secretary-Treasurer.

TECHNICAL EXHIBIT

1. Surgical Selling Company
139 Forrest Avenue, N.E., Atlanta
- 3-3½. J. A. Majors Company
1301 Tulane Avenue, New Orleans, La.
4. American Surgical Supply Company
378 Peachtree Street, N.E., Atlanta
5. Mead Johnson & Company
Evansville, Ind.
7. Ortho Products, Inc.
Linden, N. J.
8. Van Pelt & Brown
503 East Franklin Street, Richmond, Va.
9. Scientific Sugars Company
Columbus, Ind.
11. Chr. Hansen's Laboratory, "The Junket Folks"
Little Falls, N. Y.
12. I. L. Nichols Prescription Products Division
The Borden Company, 350 Madison Avenue,
New York, N. Y.
13. Bilhuber-Knoll Corporation
Orange, N. J.
14. Burroughs Wellcome Company
9-11 East 41st Street, New York, N. Y.
15. Ayerst, McKenna & Harrison
Rouses Point, N. Y.
16. E. R. Squibb & Sons
745 Fifth Avenue, New York, N. Y.
17. Sharp & Dohme
Philadelphia, Pa.
18. Gerber Products Company
Fremont, Mich.
19. The C. V. Mosby Company
3525 Pine Boulevard, St. Louis, Mo.
20. Lederle Laboratories
30 Rockefeller Plaza, New York, N. Y.
21. John Wyeth & Brother
1600 Arch Street, Philadelphia, Pa.
22. Parke, Davis & Company
Detroit, Mich.
- 24-5. Crews Drug Company
Atlanta
26. Eli Lilly & Company
Indianapolis, Ind.
27. The Wm. S. Merrell Company
Cincinnati, Ohio
28. Max Woehner & Son Company
29-31 West Sixth Street, Cincinnati, Ohio
30. Ciba Pharmaceutical Products
Summit, N. J.

31. Pet Milk Sales Corporation
Arcade Building, St. Louis, Mo.
32. H. J. Heinz Company
P. O. Box 57, Pittsburgh, Pa.
34. Riedel-de Haen, Inc.
105 Hudson Street, New York, N. Y.
35. C. B. Fleet Company
Lynchburg, Va.
37. Effervescent Products, Inc.
Elkhart, Ind.
39. Winthrop Chemical Company
170 Varick Street, New York, N. Y.

IN MEMORIAM

- Adams, Frank L., Elberton, May 3, 1942, aged 74.
Andrews, William Walter, Tucker, July 18, 1942, aged 74.
Avery, James Corbin, Atlanta, October 19, 1942, aged 86.
Belflower, Hinton Miller, Sycamore, December 3, 1942, aged 65.
Blanchard, Cluese A., Augusta, November 7, 1942, aged 72.
Boring, James R., Canton, November 29, 1942, aged 64.
Bowdoin, Joseph P., Atlanta, August 6, 1942, aged 76.
Burgess, Pleasant Lewis, Bowdon, March 14, 1943, aged 61.
Cater, Robert L., Perry, September 16, 1942, aged 76.
Chappell, Guy, Dawson, January 15, 1943, aged 68.
Cheney, James Newton, Silver Creek, January 28, 1943, aged 77.
Churchill, Charles White, Thomson, October 26, 1942, aged 64.
Cranford, Oscar G., Sasser, October 25, 1942, aged 76.
Curry, James Walker, Rome, July 11, 1942, aged 67.
Deadwyler, Madison Pope, Maysville, December 3, 1942, aged 69.
Dorminy, Andrew Cornelius, Hoboken, March 19, 1942, aged 61.
Fitts, Charles Cowdrey, Carrollton, November 8, 1942, aged 48.
Floyd, John Thomas, Atlanta, September 2, 1942, aged 61.
Franklin, Rufus Cecil, Swainsboro, December 4, 1942, aged 61.
Frazer, John Lipscomb, Fitzgerald, August 9, 1942, aged 76.
Harbin, William Pickens, Sr., Rome, November 4, 1942, aged 70.
Harris, Raymond Victor, Savannah, January 23, 1943, aged 63.
Henley, James Thomas, Douglasville, October 27, 1942, aged 72.
Heyward, Arthur R., Warwick, August 3, 1942, aged 72.
Holmes, Walter B., Wadley, September 25, 1942, aged 73.
Jenkins, James Columbus, Hartwell, February 1, 1943, aged 63.
Kea, Victor Emanuel, Atlanta, May 20, 1942, aged 52.
Lamar, Lucius, Dawson, June 9, 1942, aged 71.
Lewis, James Barnett, Waynesboro, October 24, 1942, aged 54.
Lowry, Tanner, Cartersville, July 6, 1942, aged 62.
Murphy, Marion W., Ringgold, February 25, 1943, aged 78.
New, James E., Dexter, December 11, 1942, aged 65.

- Odum, William Walter, Lyons, January 29, 1943, aged 71.
Orr, Jake Cobb, Buford, May 16, 1942, aged 56.
Pinkston, John W., Greenville, December 14, 1942, aged 82.
Ross, James Thweatt, Macon, December 22, 1942, aged 82.
Shelley, William P., Albany, October 23, 1942, aged 86.
Smith, Donald F., Atlanta, June 23, 1942, aged 67.
Smith, Edward Cooper, Donalsonville, March 15, 1943, aged 59.
Smith, James A., Lyerly, August 27, 1942, aged 85.
Standifer, William Bryan, Blakely, June 25, 1942, aged 86.
Thomson, John Danner, Atlanta, November 10, 1942, aged 63.
Toepel, Theodore, Atlanta, March 12, 1943, aged 74.
Walling, Cadow B., Collins, December 6, 1942, aged 72.
Waring, Thomas Pinckney, Savannah, January 8, 1943, aged 76.

CONSTITUTION AND BY-LAWS OF THE MEDICAL ASSOCIATION OF GEORGIA

Constitution

ARTICLE I.—NAME OF THE ASSOCIATION

The name and title of this organization shall be the Medical Association of Georgia.

ARTICLE II.—PURPOSES OF THE ASSOCIATION

The purpose of this Association shall be to federate and bring into one component organization the entire medical profession of the State of Georgia; to extend medical knowledge and advance medical science; to elevate the standard of medical education and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state and medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

ARTICLE III.—COMPONENT SOCIETIES

Component societies shall consist of those county societies which hold charters from this Association.

ARTICLE IV.—COMPOSITION OF THE ASSOCIATION

Section 1. This Association shall consist of members and delegates.

Sec. 2. Members: The members of this Association shall be the members of the component county medical societies to which only white physicians shall be eligible.

Sec. 3. Delegates: Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective component societies in the House of Delegates of this Association.

ARTICLE V.—HOUSE OF DELEGATES

The House of Delegates shall be the legislative body of the Association, and shall consist of: (1) delegates elected by the component county societies; (2) the

officers of the Association enumerated in Section 1 of Article IX of the Constitution; (3) ex-presidents and delegates to the American Medical Association.

ARTICLE VI.—COUNCIL

The Council shall be the Board of Trustees and Finance Committee of the Association. The Council shall have full authority and power of the House of Delegates between annual sessions, unless the House of Delegates be called into session as provided in the Constitution and By-Laws.

It shall consist of the Councilors, the President, the President-Elect and the Secretary-Treasurer of the Association. Five of its members shall constitute a quorum.

ARTICLE VII.—SESSIONS AND MEETINGS

Section 1. The annual session shall take place on the second Wednesday in May at such place as shall be designated by the Association, provided that in case of conflict with the annual session of the American Medical Association or on petition of the county society of the host city made at least six months before the fixed dates for the annual session, the Council may change the dates by publishing a notice in the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA three months before the session.

Sec. 2. Special meetings of either the Association or the House of Delegates may be called by a two-thirds vote of the Council, or upon the petition of twenty delegates.

ARTICLE VIII.—SECTIONS AND DISTRICT SOCIETIES

Section 1. The House of Delegates may provide for a division of the scientific work of the Association into appropriate sections, and for the organization of such Councilor district societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies.

ARTICLE IX.—OFFICERS

Section 1. The officers of this Association shall be a President, President-Elect, two Vice-Presidents, a Secretary-Treasurer, a Parliamentarian, and one Councilor for each congressional district in the State.

Sec. 2. The officers, except the Secretary-Treasurer, Parliamentarian and Councilors, shall be elected annually, provided that after the annual meeting of 1928 a President-Elect and not a President shall be elected annually. The President-Elect shall assume his office as President immediately after the next annual meeting following his election. The terms of the Councilors shall be for three years, as may be arranged, viz: the Councilor for the first, second, third and fourth districts for three years; those for the fifth, sixth, seventh, and eighth districts for one year; those for the ninth and tenth districts for two years. The Secretary-Treasurer shall be elected for a term of five years, and the Parliamentarian for a term of three years. All these officers shall serve until their successors are elected and installed (1933).

Sec. 3. The officers of this Association shall be elected by ballot at 12 o'clock noon on the third day of the annual session. Nomination for office shall be made orally, but the nominating speech must not exceed two minutes. The Councilors shall be elected at the same time on nomination by their respective district societies

at the annual meetings of such societies preceding the annual session of the Association at which the vacancies occur, but if no nomination from a district society is brought before the Association, the nomination for Councilor may be presented from the floor. If there is no election on the first ballot, the three names receiving the highest number of ballots shall be voted on, the other names being dropped. If there is no election on the second ballot, the two names receiving the highest number of ballots shall be voted on until an election occurs. Delegates to the American Medical Association shall be elected at the same time and in the same manner.

Sec. 4. The members of the State Board of Health shall be nominated by their respective district societies at the annual meeting of such societies preceding the annual session of this Association, and in failure of nomination by district societies, they may be nominated by the delegates present from each of the district societies, all of which shall be ratified by this Association.

ARTICLE X.—FUNDS AND EXPENSES

Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall not exceed the sum of \$10.00 per capita per annum. Funds may be appropriated by the House of Delegates to defray the expenses of the Association, for publications, and for such other purposes as will promote the welfare of the profession. All resolutions appropriating funds must be approved by the Finance Committee before action is taken thereon.

ARTICLE XI.—RATIFICATION

The House of Delegates shall submit all questions before it to the Association for ratification.

ARTICLE XII.—THE SEAL

The Association shall have a common seal, with power to break, change or renew the same at pleasure.

ARTICLE XIII.—AMENDMENTS

Any amendment that may be offered to the Constitution shall lie over until the next annual session; and for its adoption at such session shall require a two-thirds vote of all present and voting.

By-Laws

CHAPTER I.—MEMBERSHIP

Section 1. The name of a physician on the properly certified roster of members of a component society, which has paid its annual assessment, shall be *prima facie* evidence of membership in this Association.

Sec. 2. Any person who is under sentence of suspension or expulsion from a component society or whose name has been dropped from its roll of members, shall not be entitled to any of the rights or benefits of this Association, nor shall he be permitted to take part in any of its proceedings until he has been relieved of such disability.

Sec. 3. Each member in attendance at the annual session shall enter his name on the registration book, indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of his society, he shall receive a badge which shall be evidence of his right to all the privileges of membership at that session. No member

shall take part in any of the proceedings of an annual session until he has complied with the provisions of this section.

Sec. 4. Special memberships. In addition to regular members, component societies may elect to membership in their organizations, for membership in this Association, the following groups of members:

(a) *Honorary members.* Any member for old age, length of service, or other good reasons, may be elected an honorary member of his county medical society, for membership in this Association. Such member shall, after election, be issued a certificate of honorary membership in this Association.

Non-resident physicians and resident or non-resident lay persons who have distinguished themselves in fields of endeavor devoted to the advancement of human welfare, may be nominated by county medical societies, or by the House of Delegates of this Association, for honorary membership in this Association. A county medical society shall not nominate for this class of membership more than one person each year. The name of such person shall be sent to the Secretary-Treasurer of this Association thirty days in advance of the annual session. Such person shall be issued an appropriate certificate of honorary membership in this Association if, and when, he is elected to honorary membership by this Association.

(b) *Associate Members.* Eligible to this classification are (1) those regular members of component societies to whom the payment of dues would be an undue hardship; (2) interns, and (3) commissioned medical officers (see Chapter VII, Sec. 5 of these By-Laws) of the United States Army, the United States Navy and the United States Public Health Service while engaged actively in their respective services or if they have been retired on account of age or physical disability, or, after long and honorable service, under the provisions of an Act of Congress.

(c) Honorary and Associate members shall not be subject to the payment of dues to the State Association. They shall enjoy the privilege of full participation in the scientific, social and educational activities of this Association. They shall not vote nor hold office and do not receive the JOURNAL or benefits of Medical Defense.

Sec. 5. Any physician applying for membership in a component medical society of this Association, who has previously practiced in a county in which affiliation with a component society is provided, and who moves to another county without having affiliated with the medical society in the jurisdiction of previous residence, before he is admitted to membership, the cause for his lack of affiliation in the society of his previous residence shall be ascertained.

CHAPTER II.—GENERAL MEETINGS

Section 1. All registered members may attend and participate in the proceedings and discussions of the general meetings. Visitors duly accredited to represent the associations of other states, or of the District of Columbia, not exceeding two in number for each organization, may attend upon, and participate in, the discussion of the general meetings, but shall not have a vote. Such delegates may read papers upon invitation of the Committee on Scientific Work. The general meet-

ings shall be presided over by the President or by one of the Vice-Presidents.

Sec. 2. No papers or addresses before the Association, except those of the President and invited essayists, shall occupy more than fifteen minutes in their delivery; and no member shall speak longer than five minutes, nor more than once on any subject, provided that each essayist shall have five minutes in which to close the discussion of his paper.

Sec. 3. Entertainments. Any social entertainment which may be given by this Association shall be confined to the evening of the second day.

Sec. 4. Guests. Any physician not a resident of this State but a member of his state association, or any distinguished scientist not a physician, may be counted a guest during any annual session on invitation of the President, and shall be accorded the privilege of participating in the scientific work of that session.

CHAPTER III.—HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet on the day preceding the first day of the annual session, the time to be fixed by the Committee on Scientific Work. It may adjourn from time to time as may be necessary to complete its business; provided that its hours shall conflict as little as possible with the general meetings. The order of business shall be arranged as a separate section of the program.

Sec. 2. Each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members, and one for each fraction thereof, but each component society which has made its annual report and paid its assessment as provided in this Constitution and By-Laws shall be entitled to one delegate. Should the regular delegate from any county not be present at the meeting, the President shall appoint a substitute from that county to act.

Sec. 3. Twenty delegates present shall constitute a quorum.

Sec. 4. It shall, through its officers, council and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall constantly study and strive to make each annual session a stepping-stone to future ones of higher interest.

Sec. 5. It shall consider and advise as to the material interest of the profession, and of the public in those important matters wherein it is dependent on the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse popular information in relation thereto.

Sec. 6. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interests of such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality, and shall continue these efforts until, if possible, every physician in every county of the State has been brought under medical society influence.

Sec. 7. It shall encourage post-graduate and research work as well as home study, and shall endeavor to have the results utilized, and intelligently discussed in the county societies.

Sec. 8. It shall divide the State into councilor districts, one for each congressional district, and when the best interests of the Association and profession will be promoted thereby, organize in each a district medical society, and all members of component county societies and no others shall be members in such district societies.

Sec. 9. It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates and may be present and participate in the debate thereon.

CHAPTER IV.—DUTIES OF OFFICERS

Section 1. The President shall preside at all meetings of the Association and of the House of Delegates; shall appoint all committees not otherwise provided for, and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office, and as far as practicable, shall visit, by appointment, the various sections of the State and assist the Councilors in building up the county societies, and in making their work more practical and useful.

In order to give him a better opportunity of becoming more fully acquainted with his duties and with the needs of the Association, the President shall be elected one year prior to taking office. During this time he shall be known as President-Elect and shall be ex-officio member of standing committees, and shall make recommendations at the next annual session.

Sec. 2. The Vice-Presidents shall assist the President in the discharge of his duties. In the event of the President's death, resignation or removal, the Vice-Presidents, in their order, shall succeed him.

Sec. 3. The Secretary-Treasurer shall give bond in the sum of One Thousand Dollars. He shall demand and receive all funds due the Association, together with the bequests and donations.

Sec. 4. The Secretary-Treasurer shall attend the general meetings of the Association and the meetings of the House of Delegates, and shall keep the minutes of their respective proceedings in separate record books. He shall be ex-officio Secretary of the Council. He shall be custodian of all record-books and papers belonging to the Association. He shall provide for the registration of the members, delegates and accredited visitors at the annual session. He shall, with the co-operation of the secretaries of the component societies, keep a card-index register of all the legal practitioners of the State by counties, noting on each his status in relation to his county society, and on request transmit a copy of this list to the American Medical Association. He shall aid the Councilors in the organization and improvement of the county societies in the extension of the power and usefulness of this Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall employ

such assistants as may be ordered by the House of Delegates with the approval of the Association, and shall make an annual report to the Association. He shall supply each component society with the necessary blanks for making their annual reports; shall keep an account with the component societies, charging against each society its assessment and collect the same. Acting with the Committee on Scientific Work, he shall prepare and issue all programs. The amount of his salary shall be fixed by the Association. He shall be editor of the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA. He shall employ such assistants as may be ordered by the Council or the House of Delegates. He shall annually make a report of his doings to the House of Delegates.

He shall furnish a balance sheet at each annual meeting for the past fiscal year to be published in the JOURNAL. This shall consist of an itemized statement of all financial transactions of the past year, all accounts made, money received and from whom and all moneys disbursed, to whom, and for what purpose, with vouchers attached. A fiscal year includes the period of time between the first day of May and the last day of April.

CHAPTER V.—COUNCIL

Section 1. The Council shall meet on the day preceding the annual session and daily during the session, and at such other times as necessity may require, subject to the approval of the President. It shall meet on the last day of the annual session of the Association to organize and outline work for the ensuing year. It shall elect a chairman and clerk, who, in the absence of the Secretary of the Association, shall keep a record of its proceedings. It shall, through its chairman, make an annual report to the House of Delegates. It shall be the business body of the Association and attend to the business of the Association in the interim between meetings.

Sec. 2. Each Councilor shall be organizer and peace-maker for his district. He shall visit each county in his district at least once a year for the purpose of organizing competent societies where none exist, for inquiring into the conditions of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his work and of the condition of the profession of each county in his district at the annual session of the House of Delegates. The necessary traveling expenses incurred by such Councilor in the line of the duties herein imposed may be allowed by the House of Delegates on a properly itemized statement, but this shall not be construed to include his expense in attending the annual session of the Association. Each Councilor may appoint a Vice-Councilor to assist him in the performance of his duties in his district.

Sec. 3. The Council shall be the board of censors of the Association. It shall consider all questions involving the right and standing of members, whether in relation to other members, to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the general meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members of a component society, on which an appeal is taken from the decision of an indi-

vidual Councilor, or to which attention has been called by the Councilor or interested members. It shall hear and decide all questions affecting unethical conduct on the part of any members at any annual session, and its decision in all such matters shall be final when ratified by the Association.

Sec. 4. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies, to be suitably designated so as to distinguish them from district societies, and the societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec. 5. The Council shall provide for and superintend the publication and distribution of all proceedings, transactions and memoirs of the Association, and shall have authority to appoint such assistants to the editor as it deems necessary. It shall manage and conduct the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA, which is the organ of the Association, and all money paid into the treasury as dues shall be received as subscriptions to the JOURNAL.

All money received by the Council and its agents, resulting from the discharge of the duties assigned to them, must be paid to the Secretary-Treasurer of the Association. As the Finance Committee it shall annually audit the accounts of the Secretary-Treasurer and other agents of this Association, and present a statement of the same in its annual report to the House of Delegates, which report shall also specify the character and cost of all the publications of the Association during the year, and the amount of all other property belonging to the Association under its control, with such suggestions as it may deem necessary. In the event of a vacancy in the office of the Secretary-Treasurer, the Council shall fill the vacancy until the next annual election.

Sec. 6. All reports on scientific subjects and all scientific discussions and papers heard before the Association, shall be referred to the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA for publication. The editor, with the consent of the Councilor for the district in which he resides, may curtail or abstract papers or discussions, and the Council may return any paper to its author which it may not consider suitable for publication.

Sec. 7. All commercial exhibits during the annual sessions shall be within the control and direction of the Council.

Sec. 8. In the absence of a Councilor and Vice-Councilor the President is empowered to appoint a representative from the district as acting Councilor, who shall have full rights and powers of a Councilor.

Sec. 9. Each Councilor shall render at every session a written report of each county in his district.

Sec. 10. Any member of the Council who fails to attend two regular successive sessions of the Council, or whose district does not show evidence of the performance of his duties during the year, unless he renders an acceptable excuse to the Council, is subject to have his position declared vacant by the President and a successor appointed by the President.

CHAPTER VI.—COMMITTEES

Section 1. The standing committees shall be as follows:

A Committee on Scientific Work.

A Committee on Public Policy and Legislation

A Committee on Arrangements.

A Committee on Medical Defense, and such other committees as may be necessary.

Sec. 2. The Committee on Scientific Work shall consist of four members, one of whom shall be the Secretary-Treasurer. The other three members shall be appointed for terms of one, two, and three years, respectively. The vacancy which will occur each year by the expiration of the term of one member shall be filled by the President with an appointment for three years. The member who has the shortest time to serve shall be Chairman. The committee shall determine the character and scope of the scientific proceedings of the Association for each session. Thirty days previous to each annual session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented.

This By-Law shall not prohibit the Committee on Scientific Work from inviting not more than two distinguished members of the national organization to deliver addresses or read papers at any annual meeting.

Sec. 3. The Committee on Public Policy and Legislation shall consist of three members and the President and Secretary, the Commissioner of Health of the State of Georgia, and a sub-committee of three members from each Councilor District appointed by the chairman when needed. It shall represent the Association in securing and enforcing legislation in the interests of public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall strive to organize professional influence so as to promote the general good of the community in local and national affairs and elections.

Sec. 4. The Committee on Arrangements shall be appointed by the component society in which the annual session is to be held. It shall provide suitable accommodations for the meeting places of the Association and of the House of Delegates and their respective committees, and shall have general charge of all arrangements. Its chairman shall report an outline of the arrangements to the Secretary-Treasurer for publication in the program, and shall make additional announcements during the session as occasion may require.

Sec. 5. The Committee on Medical Defense shall consist of five members, of whom the Chairman of the Council and the Secretary-Treasurer of the Association shall be members. The other members, one of whom shall act as Chairman of the Committee, shall be elected by the Council for a period of five years. Those elected at this meeting (April 19, 1916), shall serve one, three and five years, respectively.

It shall be the duty of the Committee on Medical Defense to investigate and defend all damage suits against the Medical Association of Georgia; to investigate all claims of civil malpractice made against its members; to take full charge of such cases, which after investigation, they decide to be proper cases for defense; to defend all such cases in the courts of last resort, to furnish General Counsel and pay court cost usual to such litigation, and reasonable fees for local attorneys

as shall be arranged by General Counsel. Provided that any member who has indemnity insurance shall have such insurance bear its portion of the expense. However, they shall not pay, or obligate the Medical Association of Georgia to pay any judgment rendered against any member upon the final determination of any case. They shall be empowered to contract with such agents or attorneys as they may deem necessary for the proper carrying out of this By-Law.

The assistance for defense, as herein provided, shall be available only to members of the Medical Association of Georgia in good standing. Any member who has not paid his annual dues by April 1st shall not be considered in good standing in the application of this By-Law.

Any member or members of the Association threatened with suit for civil malpractice shall immediately communicate with the Secretary of the Association and shall give full and complete information in reference to all the circumstances alleged in the complaint. The Secretary shall proceed immediately to investigate the circumstances reported and shall advise with the attorneys or agents employed by the Committee for this purpose. The members sued, or threatened with suit, shall be consulted and shall have the complete confidence of the Committee in all transactions connected with the investigation in question. The Committee shall have the authority to require of a constituent society or the president thereof, the appointment of a committee of investigation in any such case, and it may direct the committee so appointed to report to the Committee on Medical Defense and not to the society from which it was appointed.

The Committee on Medical Defense may also, at its discretion, arrange to prosecute illegal practitioners in the State of Georgia and assist in the enforcement of the Medical Practice Act of this State.

CHAPTER VII.—COUNTY SOCIETIES

Section 1. All county societies now in affiliation with this Association, or those which may hereafter be organized in the State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, shall, on application, receive a charter from and become a component part of this Association.

Sec. 2. As rapidly as can be done after the adoption of this Constitution and By-Laws, a medical society shall be organized in every county in the State in which no component society exists, and charter shall be issued thereto.

Sec. 3. Charters shall be issued only on approval of the Council, and shall be signed by the President and Secretary of this Association. The Association shall have authority to revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws.

Sec. 4. Only one component medical society shall be chartered in any county.

Sec. 5. Each county society shall judge of the qualifications of its own members, but as such societies are the only portals to this Association, every legally registered white physician who does not practice or claim to practice, nor lend his support to any exclusive system of medicine, shall be eligible to membership. Physicians

who have been legally registered in other states or who have been licensed by the National Board of Medical Examiners, or who are employed as teachers in the medical schools, or are in the service of the State, a county, a municipality, or the United States Government other than the regular medical corps of the United States Army, the United States Navy and the United States Public Health Service, may be accepted for membership in county medical societies, for membership in this Association, provided they meet the requirements of regular membership. Before a charter is issued to any county medical society, full and ample notice and opportunity shall be given to every such physician in the county to become a member.

Sec. 6. No matter what the unethical conduct or discipline of the members of the county society may be, both plaintiff and defendant shall have the right to appeal to the Council, whose decision shall be final when ratified by the Association.

Sec. 7. In hearing appeals the Council may admit oral or written evidence, as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual Councilors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Sec. 8. When a member in good standing in a component county society moves to another county in this State, he shall be given a written certificate of these facts by the secretary of his society, without cost, for transmission to the secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he moves, such members shall be considered to be in good standing in the county society from which he was certified and in the Medical Association of Georgia to the end of the period for which his dues have been paid.

Sec. 9. A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in whose jurisdiction he resides.

Sec. 10. Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county; and systematic efforts shall be made by each member and by the society as a whole, to increase the membership until it embraces every qualified physician in the county.

Sec. 11. At some meeting in advance of the annual session of this Association, each county society shall elect a delegate or delegates to represent it in the House of Delegates of this Association, in the proportion of one delegate to each fifty members, or fraction thereof, and the Secretary of the society shall send a list of such delegates to the Secretary of this Association at least ten days before the annual session.

Sec. 12. The Secretary of each component society shall keep a roster of its members, and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. In keep-

ing such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

Sec. 13. The Secretary of each component society shall forward its assessment, together with its roster of officers and members, list of delegates, and lists of non-affiliated physicians of the county, to the Secretary of this Association each year, thirty days before the annual session.

Sec. 14. Any county society which fails to pay its assessment, or make the report required on or before April 1 of each year, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Association, or of the House of Delegates, until such requirement has been met.

Sec. 15. The Secretary of each county society shall report to the JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA full minutes of each meeting and forward to it all scientific papers and discussions which the society shall consider worthy of publication.

CHAPTER VIII.—RULES AND ETHICS

Section 1. The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's Rules of Order, when not in conflict with this Constitution and By-Laws.

Sec. 2. All papers read before the Association shall become its property. Each paper shall be deposited with the Secretary when read, and if this is not done it shall not be published.

Sec. 3. The principles of medical ethics of the American Medical Association shall be those of this Association.

Sec. 4. Any member of this Association, on locating in a new place for practicing his profession, may place his professional card, containing name, address, telephone number, and statement as to whether or not his practice will be limited to any particular class of diseases, in the local paper for a period of not longer than one month. The placing of such card for this period of time shall not be considered unethical. The use of the word "specialist" by any member in connection with his name in any newspaper, telephone directory, or other public places, shall be considered unethical.

CHAPTER IX.—AMENDMENTS

These By-Laws may be amended at any annual session by a majority vote of the Association after the amendment has lain on the table for one day.

RESOLUTIONS,

MEDICAL ASSOCIATION OF GEORGIA

1921

Resolved, That a member who sends in a title of a paper to be placed on the program and is not present to read the paper, shall pay the penalty of not having an opportunity to appear on the program for two years, unless he presents an excuse acceptable to the Committee on Scientific Work.

1922

Be it Resolved, That the House of Delegates recommend that the Committee on Scientific Work make available on the program of the State Association space for two papers from each Council district; that a definite time be assigned for reading and discussion of each of these papers, and they be given precedence over all other business. The said papers are to be selected by the Committee on Scientific Work, and, in case a writer does not respond when his name is called, some paper will be substituted and the schedule not deranged. The President ruled that this resolution is only a recommendation and not a law.

1928

Resolved, That the delegates to the A. M. A. elected at this and succeeding meetings of the Medical Association of Georgia be installed January 1st, following their election, and that their term of service run for two years thereafter. And be it further

Resolved, That our delegates be authorized to attend the regular and any called meeting of the House of Delegates of the American Medical Association during the term to which they are elected.

1929

Resolved, That in order to expedite the business of the House of Delegates, all reports of special and regular committees of the Association involving matters of public policy, legislation or appropriation of the funds of the Association be submitted in writing to the Secretary of the Association a sufficient time in advance of the regular annual session, about March 15th, to permit the publication of said recommendations either in the official program prior to the session or in a special circular that shall be mailed to the constituent societies, in order that the delegates may be advised of the proposed changes.

1942

Resolved, That the House of Delegates set the amount of dues at \$7.00 per capita for the year 1943.

BOOK REVIEW

Students of poliomyelitis, a disease sometimes rampant in Georgia, will welcome *The Kenny Concept of Infantile Paralysis and Its Treatment*, by John F. Pohl, M.D., in collaboration with Sister Elizabeth Kenny, published by Bruce Publishing Co., Saint Paul. Price \$5.00.

Easily readable and with 114 explanatory photographs, this book of 368 pages sets forth the newer concepts regarding the treatment of patients with poliomyelitis. While moist heat through the application of hot packs to individuals suffering with this disease has been used since 1916, it remained for Sister Kenny, working under primitive conditions in the bush of Australia, to develop systematic technics which have brought about revolutionary changes in the treatment of the acute stages of the disease. In the United States, in association with reputable physicians and surgeons, her work has been enlarged and it would appear now that sufferers of poliomyelitis may look forward to great benefit when her methods of treatment are used.

WOMAN'S AUXILIARY : OFFICERS 1942-43

President—Mrs. J. Lon King, 223 Buford Place, Macon.

President-Elect—Mrs. Wm. Bruce Schaefer, Toccoa.

First Vice-President—Mrs. Harry M. Kandel, 432 Abercorn Street, Savannah.

Second Vice-President — Mrs. Walter G. Elliott, Cuthbert.

Third Vice-President — Mrs. Ralph W. Fowler, Marietta.

Recording Secretary—Mrs. J. C. Metts, 303 Anderson Avenue, Savannah.

Parliamentarian—Mrs. S. T. R. Revell, Louisville.

Treasurer—Mrs. Lucius N. Todd, Rural Delivery No. 2, Augusta.

Historian—Mrs. Jack R. McMichael, Quitman.

Corresponding Secretary—Mrs. Wallace L. Bazemore, 127 Beverly Place, Macon.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N. W., Atlanta



MRS. J. LON KING, Macon
President, 1942-43

A sincere welcome awaits us in Atlanta. Do plan to come.

Sincerely yours,

MRS. J. LON KING, *President*
Woman's Auxiliary to the
Medical Association of Georgia

To the Members of the Woman's Auxiliary:

The Woman's Auxiliary to the Fulton County Medical Society extends a most cordial invitation to you, as members of medical auxiliaries of Georgia, to attend the State Convention in Atlanta, May 11-14.

Be our guests in beautiful Atlanta and let's prove that we are truly an Auxiliary, each member of which is willing to show her great devotion for her husband, her neighbor and her country by performing a definite service in a concerted effort to win this war.

ANNABEL BURKHEAD GREENE,
(Mrs. Edgar Hill Greene),
President, Woman's Auxiliary,
Fulton County Medical Society

PROGRAM

NINETEENTH ANNUAL CONVENTION
ATLANTA BILTMORE HOTEL, ATLANTA
MAY 11-14, 1943

Executive Board Officers

President—Mrs. J. Lon King, Macon

President-Elect—Mrs. Bruce Schaefer, Toccoa

First Vice-President—Mrs. H. M. Kandel, Savannah

Second Vice-President—Mrs. W. G. Elliott, Cuthbert

Third Vice-President—Mrs. Ralph Fowler, Marietta

Recording Secretary—Mrs. J. C. Metts, Savannah

Corresponding Secretary—Mrs. Wallace Bazemore,
Macon

Treasurer—Mrs. Lucius Todd, Augusta

Historian—Mrs. J. R. McMichael, Quitman

Parliamentarian—Mrs. S. T. R. Revell, Louisville

**CHAIRMEN OF STANDING COMMITTEES
DISTRICT MANAGERS**

**PRESIDENTS OF COUNTY AUXILIARIES
PAST PRESIDENTS OF STATE AUXILIARY**
Chairmen of Standing Committees

Organization—Mrs. Bruce Schaefer, Toccoa

Health Education—Mrs. H. M. Kandel, Savannah

Hygeia—Mrs. W. G. Elliott, Cuthbert

Scrapbook—Mrs. Ralph Fowler, Marietta

INVITATION—ATLANTA CONVENTION

Dear Auxiliary Members:

The Nineteenth Annual Convention of the Woman's Auxiliary to the Medical Association of Georgia will meet in Atlanta May 11-14.

This year more than ever, we need to come together and enjoy the friendships made during the years.

The Auxiliary extends a welcome to all wives of doctors in Georgia and also to the wives of doctors who have come to the State through war service. These wives are urgently asked to attend.

The convention will show where progress has been made, and what more can be done for better health and greater service to the Medical Association of Georgia.

Public Relations—Mrs. Dawson Allen, Milledgeville
 Legislation—Mrs. Charles C. Harrold, Macon
 Press and Publicity—Mrs. Harry Rogers, Atlanta
 Visual Education—Mrs. Leo Smith, Waycross
 Doctors' Day—Mrs. Leonard R. Massengade, Lumpkin
 Research in Romance of Medicine—Mrs. W. T. Randolph, Winder
 Student Loan Fund—Mrs. H. G. Banister, Macon
 Jane Todd Crawford Memorial—Mrs. Ralph Chaney, Augusta
 Revisions—Mrs. James N. Brawner, Sr., Atlanta
 Archives—Mrs. Eustace Allen, Atlanta
 Exhibits and Awards—Mrs. Edgar Shanks, Atlanta
 "Mrs. James N. Brawner Trophy"—Mrs. Lee Howard, Savannah
 Bulletin—Mrs. Walter Mobley, Macon

District Managers

First District—Mrs. W. E. Simmons, Metter
 Second District—Mrs. Carl S. Pittman, Tifton
 Third District—Mrs. J. L. Callemore, Perry
 Fifth District—Mrs. J. Harry Rogers, Atlanta
 Sixth District—Mrs. J. B. Dillard, Davisboro
 Seventh District—Mrs. J. E. Billings, Calhoun
 Eighth District—Mrs. W. M. Flanagan, Waycross
 Ninth District—Mrs. W. T. Randolph, Winder
 Tenth District—Mrs. G. L. Loden, Colbert

President of County Auxiliaries

Baldwin County—Mrs. Richard Binion, Milledgeville
 Barrow County—Mrs. C. B. Almand, Winder
 Bibb County—Mrs. Carl Anderson, Macon
 Bleckley-Dodge-Pulaski Counties—Mrs. I. J. Parkerson, Eastman
 Bulloch-Candler-Evans Counties—Mrs. W. E. Floyd, Statesboro
 Burke-Jenkins-Screven Counties—Mrs. L. F. Lanier, Sylvania
 Chatham County (Georgia Medical Society Auxiliary)—Mrs. R. V. Martin, Savannah
 Cherokee-Pickens Counties—Mrs. Newton J. Coker, Canton
 Clarke-Oglethorpe-Oconee-Madison Counties—Mrs. H. W. Birdsong, Athens
 Cobb County—Mrs. L. L. Welch, Marietta
 Colquitt-Brooks Counties—Mrs. A. G. Funderburke, Moultrie
 Dougherty County—Mrs. W. M. Fields, Albany
 Fulton County—Mrs. Edgar Greene, Atlanta
 Gordon County—Mrs. W. D. Hall, Calhoun
 Gwinnett County—Mrs. D. C. Kelley, Lawrenceville
 Habersham County—Mrs. C. M. Sharp, Alto
 Houston-Peach Counties—Mrs. R. L. Cater, Perry
 Jackson County—Mrs. M. B. Allen, Hoschton
 Lamar County—Mrs. J. H. Jackson, Barnesville
 Macon County—Mrs. H. C. Derrick, Oglethorpe
 Muscogee County—Mrs. W. L. Cooke, Columbus
 Randolph-Terrell Counties—Mrs. T. F. Harper, Coleman
 Richmond County—Mrs. Claude E. Tessier, Augusta
 Stephens County—Mrs. W. B. Hellar, Toccoa
 Sumter County—Mrs. Russell Thomas, Americus
 Tift County—Mrs. A. G. LeRoy, Tifton
 Ware County—Mrs. Kenneth C. Walden, Waycross
 Washington County—Mrs. J. B. Dillard, Davisboro

Conventions and Presidents

Honorary President for Life—Mrs. James N. Brawner, Atlanta
 1924—Augusta—(Organization)—Mrs. C. W. Roberts, Atlanta, Temporary Chairman
 1925—Atlanta—Mrs. James N. Brawner, Sr., Atlanta
 1926—Albany—Mrs. William H. Myers, Savannah
 1927—Athens—Mrs. C. W. Roberts, Atlanta
 1928—Savannah—Mrs. Paul Holliday, Athens (Mrs. J. C. Moore)
 1929—Macon—Mrs. Charles C. Hinton, Macon
 1930—Augusta—Mrs. Marion T. Benson, Atlanta
 1931—Atlanta—Mrs. Charles C. Harrold, Macon
 1932—Savannah—Mrs. Ralston Lattimore, Savannah
 1933—Macon—Mrs. S. T. R. Revell, Louisville
 1934—Augusta—Mrs. J. Bonar White, Atlanta
 1935—Atlanta—Mrs. J. E. Penland, Waycross
 1936—Savannah—Mrs. Ernest R. Harris, Winder
 1937—Macon—Mrs. William R. Dancy, Savannah
 1938—Augusta—Mrs. Ralph H. Chaney, Augusta
 1939—Atlanta—Mrs. Warren A. Coleman, Eastman
 1940—Savannah—Mrs. Eustace A. Allen, Atlanta
 1941—Macon—Mrs. H. G. Banister, Macon
 1942—Augusta—Mrs. Lee Howard, Savannah

Arrangements

Mrs. Edgar H. Greene, Atlanta, General Chairman
 Mrs. J. E. Paullin, Atlanta
 Mrs. W. A. Selman, Atlanta
 Mrs. George Fuller, Atlanta
 Mrs. H. C. Sauls, Atlanta
 Mrs. B. L. Shackelford, Atlanta
 Mrs. Charles M. Bowcock, Atlanta
 Mrs. Marvin Mitchell, Atlanta
 Mrs. Allen H. Bunce, Atlanta

Advisory

Mrs. William M. Dunn, Atlanta, Chairman
 Mrs. Stephen T. Brown, Atlanta
 Mrs. Eustace Allen, Atlanta
 Mrs. C. W. Roberts, Atlanta
 Mrs. Marion T. Benson, Atlanta
 Mrs. McClaren Johnson, Atlanta
 Mrs. Calhoun McDougall, Atlanta

Registration and Information

Mrs. G. F. Spearman, Atlanta, Chairman
 Mrs. Frank Boland, Atlanta
 Mrs. Don Cathcart, Atlanta
 Mrs. T. Bolling Gay, Atlanta
 Mrs. Emory G. Lower, Atlanta
 Mrs. Dan Y. Sage, Atlanta
 Mrs. Thomas J. Collier, Atlanta
 Mrs. W. R. Crowe, Atlanta
 Mrs. John W. Turner, Atlanta
 Mrs. Ernest S. Colvin, Atlanta
 Mrs. Taylor S. Burgess, Atlanta
 Mrs. O. B. Bush, Atlanta
 Mrs. Earl Quillian, Atlanta
 Mrs. J. D. Nall, Atlanta
 Mrs. D. T. Heyser, Atlanta
 Mrs. Fred F. Rudder, Atlanta
 Mrs. T. L. Tidmore, Atlanta

COMMITTEES

Exhibit

Mrs. W. A. Smith, Atlanta, Chairman

Mrs. Edgar D. Shanks, Atlanta
 Mrs. Murdock Equen, Atlanta
 Mrs. Alston Callahan, Atlanta
 Mrs. Bruce Logue, Atlanta
 Mrs. Clifford Eskey, Atlanta
 Mrs. J. L. Campbell, Atlanta
 Mrs. Joseph C. Read, Atlanta
 Mrs. J. R. Barfield, Atlanta
 Mrs. Leo P. Daly, Atlanta
 Mrs. John Funke, Atlanta
 Mrs. J. C. Blalock, Atlanta

Health Films

Mrs. Olin S. Cofer, Atlanta, Chairman
 Mrs. Jeff Richardson, Atlanta
 Mrs. Marion C. Pruitt, Atlanta
 Mrs. O. H. Matthews, Atlanta
 Mrs. T. P. Goodwyn, Atlanta
 Mrs. Guy Lunsford, Atlanta
 Mrs. L. L. Williams, Jr., Atlanta

Luncheon

Mrs. R. E. Newberry, Atlanta, Chairman
 Mrs. Leland Baggett, Atlanta
 Mrs. Evert A. Bancker, Atlanta
 Mrs. J. R. Childs, Atlanta
 Mrs. J. J. Clark, Atlanta
 Mrs. William Troy Bivings, Jr., Atlanta
 Mrs. W. L. Ballenger, Atlanta
 Mrs. Stephen T. Barnett, Atlanta
 Mrs. T. F. Davenport, Atlanta
 Mrs. Omar F. Elder, Atlanta
 Mrs. H. Grady Estes, Atlanta
 Mrs. George F. Eubanks, Atlanta
 Mrs. J. N. Brawner, Jr., Atlanta
 Mrs. Glenn J. Bridges, Atlanta
 Mrs. J. C. Burch, Atlanta
 Mrs. Joseph Yampolsky, Atlanta

Pages

Mrs. Shelley Davis, Atlanta, Chairman
 Mrs. Herschel Crawford, Atlanta
 Mrs. Homer Maulding, Atlanta
 Mrs. W. C. Waters, Atlanta
 Mrs. Stacy Howell, Atlanta
 Mrs. Harvey L. Hamff, Atlanta
 Mrs. Malcolm Mullen, Atlanta
 Mrs. J. B. Carothers, Atlanta
 Mrs. Charles Reiser, Atlanta

Decorations

Mrs. Hulett H. Askew, Atlanta, Chairman
 Mrs. Phinzy Calhoun, Atlanta
 Mrs. W. W. Anderson, Atlanta
 Mrs. W. Beecher DuVall, Atlanta
 Mrs. L. C. Fischer, Atlanta
 Mrs. Fred G. Hodgson, Atlanta
 Mrs. Jack Jones, Atlanta
 Mrs. Harry N. Kraft, Atlanta
 Mrs. J. W. Landham, Atlanta
 Mrs. Clarence L. Laws, Atlanta
 Mrs. Hugh M. Lokey, Sr., Atlanta
 Mrs. William Warren, Jr., Atlanta
 Mrs. William F. Shallenberger, Atlanta
 Mrs. Mark P. Pentecost, Atlanta
 Mrs. Cosby Swanson, Atlanta
 Mrs. Hal Davison, Atlanta

Memorial

Mrs. Wallace Bazemore, Macon, Chairman
 Mrs. James N. Brawner, Sr., Atlanta

Program

Mrs. J. N. Brawner, Sr., Atlanta, Chairman
 Mrs. T. Luther Byrd, Atlanta
 Mrs. Charles E. Dowman, Atlanta
 Mrs. Crawford F. Barnett, Atlanta
 Mrs. M. T. Edgerton, Atlanta
 Mrs. D. R. Longino, Atlanta

Timekeeper

Mrs. C. H. Pinson, Hapeville, Chairman
 Mrs. Charles E. Rushin, Atlanta
 Mrs. Clifton G. Kemper, Atlanta
 Mrs. Clinton Reed, Atlanta
 Mrs. Linton Smith, Atlanta

Publicity

Mrs. J. Harry Rogers, Atlanta, State and Local Chairman
 Mrs. J. Harry Lange, Atlanta

Hospitality

Hostess

Mrs. Mason Lowance, Atlanta, Chairman
 Mrs. Jack C. Norris, Atlanta
 Mrs. Robert W. Candler, Atlanta
 Mrs. John B. Fitts, Atlanta
 Mrs. F. Lee Bivings, Atlanta
 Mrs. John B. Cross, Atlanta
 Mrs. Walker Curtis, Atlanta
 Mrs. W. L. Cousins, Atlanta
 Mrs. Virgil C. Cooke, Atlanta
 Mrs. Charles H. Daniel, Atlanta
 Mrs. Eugene Daniel, Atlanta
 Mrs. Mark S. Dougherty, Atlanta
 Mrs. John F. Denton, Atlanta
 Mrs. Roger W. Dickson, Atlanta
 Mrs. John B. Duncan, Atlanta
 Mrs. Ernest Felber, Atlanta
 Mrs. Kimsey Foster, Atlanta
 Mrs. W. L. Funkhouser, Atlanta
 Mrs. Wadley Glenn, Atlanta
 Mrs. J. Gaston Gay, Atlanta
 Mrs. Elbert Agnor, Atlanta
 Mrs. Guy D. Ayer, Atlanta
 Mrs. Luther P. Baker, Atlanta
 Mrs. W. W. Blackman, Atlanta
 Mrs. Edward S. Wright, Atlanta
 Mrs. Frank A. Blalock, Atlanta
 Mrs. Charles G. Boland, Atlanta
 Mrs. A. F. Brawner, Smyrna
 Mrs. Calvin B. Stewart, Atlanta
 Mrs. Carter Smith, Atlanta
 Mrs. Lisle B. Robinson, Atlanta
 Mrs. Elmer A. Vorisek, Atlanta
 Mrs. W. E. Upchurch, Atlanta
 Mrs. Charles S. Ward, Atlanta
 Mrs. Ben Read, Atlanta
 Mrs. J. L. Pittman, Atlanta
 Mrs. Vernon E. Powell, Atlanta
 Mrs. C. A. Rhodes, Atlanta
 Mrs. Harry W. Ridley, Atlanta
 Mrs. M. Hines Roberts, Atlanta
 Mrs. Malcolm Neel, Atlanta

Mrs. L. C. Rouglin, Atlanta
 Mrs. William McDougall, Atlanta
 Mrs. Samuel Green, Atlanta
 Mrs. Lawrence Halpin, Atlanta
 Mrs. M. T. Harrison, Atlanta
 Mrs. Guy C. Hewell, Atlanta
 Mrs. F. C. Holden, Atlanta
 Mrs. H. F. Hope, Atlanta
 Mrs. B. E. Horton, Atlanta
 Mrs. L. H. Kelley, Atlanta
 Mrs. W. A. Kelley, Atlanta
 Mrs. Spencer Kirkland, Atlanta
 Mrs. Roy R. Kracke, Atlanta
 Mrs. H. J. Lehnhoff, Atlanta
 Mrs. Harold B. Levin, Atlanta
 Mrs. A. O. Linch, Atlanta
 Mrs. Robert C. Major, Atlanta
 Mrs. O. T. Malone, Atlanta
 Mrs. J. D. Martin, Jr., Atlanta
 Mrs. Charles M. Mashburn, Atlanta
 Mrs. C. G. McCay, Atlanta
 Mrs. C. J. McLoughlin, Atlanta
 Mrs. Ricardo Mestre, Atlanta
 Mrs. Arthur J. Merrill, Atlanta
 Mrs. Fred R. Minnich, Atlanta
 Mrs. Henry W. Minor, Atlanta
 Mrs. J. M. Monfort, Atlanta
 Mrs. S. L. Morris, Jr., Atlanta
 Mrs. A. S. Sanders, Atlanta
 Mrs. J. S. Skobba, Atlanta
 Mrs. Randolph Smith, Atlanta
 Mrs. Simon H. Smith, Atlanta
 Mrs. L. N. Turk, Jr., Atlanta
 Mrs. C. D. Vinson, Atlanta
 Mrs. Robert L. Whipple, Atlanta
 Mrs. George A. Williams, Atlanta
 Mrs. T. I. Willingham, Atlanta
 Mrs. W. W. Coppedge, Atlanta
 Mrs. J. Harris Dew, Atlanta
 Mrs. Chester A. Fort, Jr., Atlanta
 Mrs. Charles K. Howard, Atlanta
 Mrs. R. Hugh Wood, Atlanta

PROGRAM

Headquarters—Atlanta Biltmore Hotel
 Tuesday, May 11, 1943

Registration

Entertainment and Program
Executive Board Meeting

Tuesday, May 11, 5:00 P.M.—Atlanta Biltmore Hotel

Tea

Tuesday, May 11, 5:00-7:00 P.M.—Dr. and Mrs. Edgar H. Greene, Academy of Medicine. (All members of Medical Association and their wives are invited.)

Luncheon

Wednesday, May 12, 1:00 P.M.—Atlanta Biltmore Hotel.

Tea

Wednesday, May 12, 5:00-7:00 P.M.—Dr. and Mrs. W. A. Selman, Academy of Medicine. (All members of the Medical Association and their wives are invited.)

Public Meeting

Wednesday, May 12, 8:00 P.M.—Medical Association of Georgia, Atlanta Biltmore Hotel.

Buffet Supper

Thursday, May 13, 6:30 P.M.—Academy of Medicine.
 (All members of the Medical Association and their wives are invited.)

PROGRAM

Wednesday, May 12, 1943, 9:30 A.M.—Academy of Medicine.

Call to Order by the President, Mrs. J. Lon King, Macon.

Invocation

Dr. William V. Gardner, Pastor, First Presbyterian Church, Atlanta.

Address of Welcome

Mrs. Edgar H. Greene, Atlanta, President, Woman's Auxiliary to the Fulton County Medical Society.

Response to the Address of Welcome

Mrs. W. M. Flanagan, Waycross.

Introduction of Honor Guests, Past Presidents and Officers

Mrs. Eustace A. Allen, Atlanta.

Address

"How the Woman's Auxiliary May Further Assist"

Dr. James A. Redfearn, Albany, President, Medical Association of Georgia.

Rules Governing Convention Procedure

Mrs. S. T. R. Revell, Louisville, Parliamentarian.

Introduction of Pages

Report of Executive Committee

Report of the Entertainment Committee

Mrs. Edgar H. Greene, Atlanta.

Report of District Managers and County Auxiliary Presidents

Report of Registration Committee

Mrs. G. F. Spearman, Atlanta.

Appointment of Special Committees

Business

Reading of Minutes

Adjournment

PROGRAM

Thursday, May 13, 9:30 A.M.—Academy of Medicine
 Call to Order by the President, Mrs. J. Lon King, Macon.

Invocation

Dr. Lester Rumble, Pastor, St. Mark's Methodist Church, Atlanta.

Address of Welcome

Mrs. William M. Dunn, Atlanta, President-Elect, Woman's Auxiliary to the Fulton County Medical Society.

Response to the Address of Welcome

Mrs. W. D. Hall, Calhoun.

Report of Advisory Committee to the Woman's Auxiliary

Dr. James N. Brawner, Sr., Atlanta, Chairman.

Address

"The Call and the Answer of the Woman's Auxiliary"
 Dr. W. A. Selman, Atlanta, President-Elect, Medical Association of Georgia.

Greetings

Dr. J. Edgar Paullin, Atlanta
 President-Elect, American Medical Association

Memorial Service

Mrs. Wallace Bazemore, Macon.

*Address**"Georgia's Public Health Problems"*

Dr. T. F. Abercrombie, Atlanta, Director of the Georgia Department of Public Health.

Report of Meeting of Auxiliary to the American Medical Association

Mrs. Allen H. Bunce, Atlanta.

Report of Meeting of Auxiliary to the Southern Medical Association

Mrs. James N. Brawner, Atlanta.

*Report of Chairmen of Standing Committees**Report of Officers**Report of Auditing Committee**Report of Resolutions Committee**Report of Registration Committee**Report of Awards Committee**Report of Courtesy Committee**Business**Report of Nomination Committee**Election of Officers**Reading of Minutes**Installation of Officers**Presentation of President's Pin to Retiring President*

Mrs. Joseph Yampolsky, Atlanta.

Announcement by President

Mrs. Bruce Schaefer, Toccoa.

Adjournment

Thursday, May 13, 2:30 P.M.

Post-Convention Board Meeting

Mrs. Bruce Schaefer, Toccoa, President.

Rules to Govern the Convention

1. To gain recognition, a delegate is requested to rise, address the chair, give her name and Auxiliary.
2. No delegate shall speak more than twice on the same subject, and is limited to two minutes each time.
3. Reports shall not be read from Auxiliaries which are not represented by delegates but shall be filed with the Secretary.
4. All original motions or resolutions shall be made by submitting two copies, one to the Resolutions Committee and one to the Recording Secretary.
5. Reports of delegates and district managers are limited to two minutes.
6. No one is entitled to vote before she is registered. Whispering conversations greatly retard the business of a meeting.

Please Be Prompt. Meetings will begin promptly at the time stated in the program. In order to expedite the business of the convention reports must conform to the time allotted.

COUNTIES REPORTING FOR 1943*Tift County Medical Society*

The Tift County Medical Society announces the following officers for 1943:

President—W. T. Smith, Tifton.

Vice-President—Ella F. Andrews, Tifton.

Secretary-Treasurer—Agnew Andrews, Tifton.

Tri Society—Calhoun, Early, Miller

The Tri Society—Calhoun, Early and Miller—Medical Society announces the following officers for 1943:

President—C. K. Sharp, Arlington.

Secretary-Treasurer—W. H. Wall, Blakely.

South Georgia Medical Society

(Berrien, Clinch, Cook, Echols, Lanier and Lowndes Counties)

The South Georgia Medical Society announces the following officers for 1943:

President—T. C. Williams, Valdosta.

Vice-President—L. R. Hutchinson, Adel.

Secretary-Treasurer—Ashley Bird, Valdosta.

Delegate—W. W. Turner, Nashville.

Alternate Delegate—H. W. Clements, Adel.

Decatur-Seminole Medical Society

The Decatur-Seminole Counties Medical Society announces the following officers for 1943:

President—W. L. Wilkinson, Bainbridge.

Vice-President—W. E. Whittle, Iron City.

Secretary-Treasurer—M. A. Ehrlich, Bainbridge.

Delegate—R. F. Wheat, Bainbridge.

Alternate Delegate—L. W. Willis, Bainbridge.

Hancock County Medical Society

The Hancock County Medical Society announces the following officers for 1943:

President—Horace Darden, Sparta.

Secretary-Treasurer—H. L. Earl, Sparta.

Delegate—C. S. Jernigan, Sparta.

Newton County Medical Society

The Newton County Medical Society announces the following officers for 1943:

President—S. L. Waits, Covington.

Vice-President—J. B. Mitchell, Porterdale.

Secretary-Treasurer—W. D. Travis, Covington.

Delegate—Pleas Wilson, Newhorn.

Gwinnett County Medical Society

The Gwinnett County Medical Society announces the following officers for 1943: fl

President—D. C. Kelley, Lawrenceville

Vice-President—W. W. Puett, Norcross.

Secretary-Treasurer—Sylvester Cain, Jr., Norcross.

Delegate—W. W. Puett, Norcross.

Alternate Delegate—W. J. Hutchins, Buford.

Wayne County Medical Society

The Wayne County Medical Society announces the following officers for 1943: fl

President—J. A. Leaphart, Jesup.

Secretary-Treasurer—A. J. Gordon, Jesup.

Ocmulgee Medical Society

(Bleckley-Dodge-Pulaski Counties)

The Ocmulgee County Medical Society announces the following officers for 1943:

President—A. R. Bush, Hawkinsville.

Vice-President—W. F. Massey, Chester.

Secretary-Treasurer—I. J. Parkerson, Eastman.

Delegate—A. R. Bush, Hawkinsville.

Alternate Delegate—J. L. Thompson, Eastman.

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1942-3

President—Frieda Grefe, R.N., Savannah

First Vice-President—Sister Cornile, Atlanta

Second Vice-President—Mrs. Mae M. Jones, Milledgeville.

Secretary—Mrs. Esther Watts, Columbus

Treasurer—Jane Van De Vrede, Atlanta.

Executive Secretary—Durice Dickerson, R.N., Headquarters, 131 Forrest Ave., N. E., Atlanta; Tel. WA. 8911

Chairman, State Committee on American Red Cross Nursing Service—Jane Van De Vrede, Atlanta

President—Georgia League of Nursing Education, Ruth Babin, Atlanta

President, Georgia State Organization of Public Health Nursing—Vera Mingledorff, Griffin.

Chairman, Private Duty Section, G.S.N.A.—Mrs. Mildred Pryse, Albany

PRIVATE DUTY NURSES ELIMINATE LUXURY NURSING—DO YOU?

MILDRED PRYSE, R.N.

*Atlanta**Chairman, Private Duty Section, Georgia State Nurses' Association*

Private duty nurses are more in demand than ever, despite the fact that there is a crying need for nurses in many other places where their services are essential to the welfare of our men in the armed forces and to our people at home. For this reason most private duty nurses are trying to limit their services to those who are actually in need of professional care. This is not an easy task for several reasons. It is harder on the nurse because it means that she must be constantly going from one case to another, caring for those who are acutely ill, then moving on as soon as each is able to get along with less specialized care. Each nurse wishes to move on with as little disturbance to her former patient as possible, leaving a feeling of good will. In many cases this has been made difficult for her because of the objection of those who are responsible for the patient, both lay and professional. In most instances this decision must rest with the doctor in charge, and this is where he can help to eliminate luxury nursing.

What is luxury nursing? In the opinion of nursing groups, it is any type of service given by professional nurses which could either be eliminated or done by someone else. Although there can be many good examples of this in private duty, the same thing applies to other fields of nursing. Because of crowded conditions in hospitals much is being done to eliminate luxury service there. Fewer patients not in need of nursing service are admitted, and fewer services of non-professional nature are given. The Red Cross Nurses' Aides are doing a splendid job of relieving the registered nurses of less specialized duties in order that they may do treatments and other essential types of service. Public health nurses are cutting down on home visits where they can safely do so, and in every branch of nursing efforts are being made to maintain *safe nursing care* without the luxury of non-essentials.

Medical, nursing, and hospital authorities are getting together to decide what constitutes essential care and what services can be eliminated in *safety*.

In the face of all this it behooves any private duty nurse to avoid remaining weeks with a convalescent, as she has done in times when there was no shortage of nursepower; nor should she spend her time in a home where the "patient" is perfectly capable of caring for himself and has a house full of servants to help him. The nurse-companion is not for wartime. A few nurses are having their lives made miserable because they are not able to obtain a release from such conditions.

Working longer hours would not help, but would more than defeat the purpose by making it impossible for most wives and mothers to work at all. Married nurses make up the majority of private duty nurses at this time. Those left in this field would have to take time out to rest between cases, which would cut down on their working days considerably.

These problems were discussed at a recent meeting of the State Nursing Council for War Service, and several plans were suggested in order to stretch nursing service to meet the demands during the emergency and still maintain safe and adequate nursing service. They are as follows:

1. Hourly nursing, whereby one nurse could give the necessary treatments to a number of patients in the same day.
2. Group nursing, whereby one nurse could care for two or three patients, provided they are not too dangerously ill and are near enough together that she could safely do so.
3. Refresher courses for inactive nurses. Many have been out of active nursing for years, but are now able and ready to come back into the field. A number of hospitals are giving refresher courses for these persons, after which they can give splendid service, and many are doing just that. Some are known to have been inactive for as long as twenty-five years, but are now back at work and enjoying it.

Yes, private duty nurses are eliminating luxury nursing. Are you assisting them?

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

PERTUSSIS VACCINE READY FOR DISTRIBUTION

The Georgia Department of Public Health has for sometime been interested in making a pertussis antigen available to physicians and health departments. Lack of accurate data to establish the merits of pertussis antigens made it necessary to postpone distribution until more concrete and specific evidence was available.

Though the present pertussis antigens are not comparable to antigens used to protect against diphtheria, smallpox and typhoid fever, it was decided that pertussis vaccine should be made available. The Health Department recommended that the Advisory Committee of the Medical Association of Georgia review and approve a proposed policy for distribution of antigens, to be selected by the Health Department, to physicians and health departments. The Advisory Committee approved the policy, contingent upon approval by the Pediatric group. The latter considered and approved the policy at the 1942 annual meeting of the Medical Association of Georgia.

During discussions with above groups it was emphasized that available antigens would probably be more effective in reducing mortality than morbidity.

The distribution of deaths from pertussis in Georgia by age groups presents an interesting picture. Of total deaths in a fifteen year period (1927-1941), 1598, or 59.7 per cent, were infants under one year of age; 961, or 35.9 per cent, were children one to four years of age; 91, or 3.4 per cent, were children five to nine years of age; and 1 per cent were either children above nine years of age or adults.

This data emphasizes the need for applying immunization measures to infants and preschool children. Since many of the infant deaths from pertussis occur during the first six to eight months of life, immunization procedures must be performed at the earliest date recommended.

It will be noted from following table that both races fare about equally in regard to total number of deaths. Therefore, the rate is higher among Negroes, since they constitute about one-third of the population and yet contribute about one-half of the total deaths.

The Georgia Department of Public Health now has pertussis vaccine available for distribution. It is stocked only at the central office in Atlanta and can be requested in the same way as other biologicals.

The product chosen is prepared by Sharp & Dohme, is known as Mulford Pertussis Bacterin, "H" Strength, and is a double strength vaccine, containing twenty billion organisms per cubic

centimeter. This type product has proven satisfactory thus far in conferring immunity against pertussis.

TOTAL PERTUSSIS DEATHS IN GEORGIA BY
COLOR, AND BY SELECTED AGE GROUPS
FOR A FIFTEEN YEAR PERIOD
(1927-1941)

Year	White	Negro	Total	Under 1	1 to 4	5 to 9
				Year	Years	Years
1927	118	111	229	133	86	8
1928	99	64	163	87	69	4
1929	171	109	280	164	98	15
1930	121	136	257	128	112	13
1931	59	54	113	72	38	1
1932	52	60	112	72	33	6
1933	116	107	223	131	78	11
1934	169	165	334	203	116	12
1935	77	72	149	89	52	7
1936	30	37	67	37	29	1
1937	75	67	142	91	47	3
1938	112	113	225	137	80	6
1939	61	73	134	97	37	2
1940	52	56	108	71	38	1
1941	69	71	140	86	48	1
Total	1381	1295	2676	1598	961	91

Pertussis vaccine is available, upon request, to any private physician, city or county commissioner of health and to those counties with health departments employing full-time public health nurses reporting to and recognized by the Georgia Department of Public Health.

The vaccine is available in vials containing twenty cubic centimeters, which is sufficient for the immunization of four children. The Georgia Department of Public Health is absorbing eighty per cent of the cost of the vaccine and is distributing it at a price of thirty cents per vial to those eligible. At this price per vial, the cost of the amount of vaccine necessary to immunize a single individual is seven and a half cents.

It should be thoroughly understood that pertussis vaccine produces an active immunity that is relative rather than absolute. For this reason, parents should be warned that pertussis immunizations may not prevent the disease in many instances. Parents, therefore, should be urged to isolate children from cases of pertussis regardless of whether or not they have been immunized. It should be pointed out that the immunity conferred is chiefly of value in that it reduces the severity of the disease and the child is less likely to succumb if he contracts it.

It is recommended that only those infants

above five months of age and those children below three years of age be immunized against pertussis. The reason for the selection of this age group is that reactions in infants under five months are frequently severe and the mortality in children beyond three years of age is relatively low.

Pertussis vaccine has not been recognized to be of definite value for therapeutic purposes or as a prophylactic measure following exposure. For these reasons the vaccine is not recommended for therapy or for conferring immunity during the incubation period.

Mulford Pertussis Bacterin, "H" Strength, contains 20,000 million Phase 1 Hemophilus pertussis organisms per cc. lending itself to the large doses which have been found necessary for full protection.

For active immunization against pertussis three doses are recommended:

1st Dose.—1 cc. (20,000 million organisms) injected subcutaneously (and not intramuscularly) in the deltoid region.

Two Weeks Later—2nd Dose.—2 cc. (40,000 million organisms) injected subcutaneously (and not intramuscularly) in the region of the biceps.

Three Weeks Later—3rd Dose.—2 cc. (40,000 million organisms) injected subcutaneously (and not intramuscularly) in the region of the triceps muscle.

A period of three or four months is probably required for maximum immunity to develop after the final injection. The duration of the immunity is not definitely known and for this reason it cannot be said with certainty that the child is protected for any particular period of time. At the present time, it is thought that a single complete immunization is all that is warranted, though future work may show that the vaccine should be repeated.

Parents should be warned that reactions are usually mild, but may be sufficient to cause parental anxiety. If the reaction occurs with the first dose it may, or may not be repeated following each subsequent dose. Reactions may occur only after the second or third doses. One cannot predict with regard to reactions, but it is wise to inform the parents that the child may develop fever, nausea and vomiting. These symptoms are usually of short duration and the child usually will have completely recovered from the effect of the vaccine in from twenty-four to forty-eight hours.

Pertussis immunization should not be inaugurated in any county by local health department until approval of a majority of the physicians or the local medical society is secured. It is the responsibility of the local public health personnel to secure approval of the profession.

EDWIN R. WATSON, M.D., *Director,*
Division of Maternal and Child Health,
Georgia Department of Public Health.

THE RELIEF OF PAIN BY NEURO-SURGICAL MEASURES

HOMER S. SWANSON, M.D.
Atlanta

It is the purpose of this paper to review briefly the many and varied painful conditions which may be relieved by neuro-surgical measures and to enumerate the various procedures, indicating their uses and limitations. The nature of the diseases to be discussed as well as their clinical manifestations are already well known and it is necessary only to recall them by name except in a few instances.

Admittedly, the objective of the physician is the discovery of the cause of the disease and its cure by the removal of the etiologic agent, but all too frequently we encounter cases of unknown cause, or, if known, find ourselves unable to remove it. In many instances even when these factors are known one is confronted with a patient who is suffering intractable pain which does not respond to the usual therapeutic agents and the problem is primarily one of relieving pain. Narcotic drugs are frequently contraindicated in chronic conditions associated with pain, so that rather than subject the patient to a life of addiction, surgical measures are frequently to be preferred. Most grateful are those patients who have been relieved of agonizing pain, such as that of trigeminal neuralgia, hopeless malignancies and nerve root compression due to such factors as the scalenus anticus syndrome or a herniated intervertebral disc.

Given then a miscellaneous and varied group of diseases characterized by pain of varying intensity and showing a lack of response to the usual medical or physiotherapeutic measures, what has neuro-surgery to offer in the way of relief? We shall first list the various procedures at our disposal which have proven effective in relieving pain and then briefly comment upon each method by giving suitable examples. The selection of the most appropriate procedure is an individual problem and it should be governed by these principles (1)

Read before the Fulton County Medical Society, Atlanta
Dec. 7, 1942.

the location of the pain, (2) the desired duration of interruption of the sensory functions, (3) the ease and accessibility of the sensory pathway, (4) the patient's physical and economic condition, (5) the life expectancy, (6) the exact nature of the illness or disease and its tendency to wax and wane, recur or spread to other areas and (7) last, but by no means least, the simplest and most effective measure. The procedures ordinarily employed are as follows:

(1) Novocaine, procaine or alcohol injection of the peripheral nerves or nerve trunks and local infiltration of novocaine.

(2) Avulsion, severance or crushing of peripheral sensory nerves or sensory root section, the latter referred to as rhizotomy.

(3) Chordotomy or tractotomy.

(4) Novocaine, procaine or alcohol injection of sympathetic ganglia or chains.

(5) Sympathectomy.

Under the first heading, namely, the injection of peripheral nerves, or nerve trunks and local infiltration of novocaine may be considered such painful conditions as post-traumatic peripheral neuralgia, post-traumatic or infectious myalgia, the atypical and bizarre facial neuralgia and in addition the most painful of all affliction — trigeminal neuralgia. Likewise, the extreme pain of an amputation neuroma often responds to the infiltration of 95 per cent alcohol after exposure and amputation of the neuroma. There are other conditions such as painful scars or bruises in which the pains are frequently ascribed to a psychoneurosis, which respond in an almost dramatic fashion to generous novocaine infiltration of the area; this may be repeated two or three times at daily or weekly intervals. In this group belong the painful and distressing so-called referred pains with superficial areas of hyperesthesia. Often the referred pain is more intense than that of the source of the disease and one may be pleasantly surprised to find that these painful and hyperesthetic skin areas respond to local infiltration with novocaine or procaine. The above methods are the simplest and least dangerous and in the cases which can be effectively treated by these procedures, it should be given a trial before more radical methods are contemplated. The results of local infiltration

of novocaine are sometimes only temporary but are often permanent, whereas, in most instances the injection of 95 per cent alcohol into the involved sensory nerve or trunk lasts from six to nine months. The latter procedure is used only in isolated nerve involvement, such as third division trigeminal neuralgia, and the injection must of necessity be within and not about the nerve, else the results are short lived. It must be pointed out that only under rather extreme circumstances is a nerve which carries both sensory and motor function to be injected with 95 per cent alcohol. We have seen permanent paralysis of muscle follow this procedure so that this method is almost always reserved for involvement of nerves which are purely sensory in function and which are accessible to injection.

Probably the simplest operative procedures carried out to relieve pain are the methods listed under the second group, namely, the avulsion, severance or crushing of peripheral nerves and so-called posterior root resection or rhizotomy. Under this group can be listed those cases of trigeminal neuralgia which involve more than one branch of the fifth nerve or which have not responded to alcohol injection. Here the involved divisions of the trigeminal nerve are either avulsed, with relief of pain for nine months to two years, or the posterior root of the involved nerve is divided intracranially, with permanent relief. In addition, glossopharyngeal neuralgia or nervus intermedius, and suboccipital neuralgia respond dramatically to severance of the involved nerves. The seventh and ninth cranial nerves are divided intracranially, the suboccipital in the neck. The varied malignancies, which are of relatively long standing, and which involve isolated areas and in addition which show very little tendency to metastasize are probably best treated by performing a posterior root section and thus permanently severing the sensory supply to the involved areas. Suitable for this same operation are cases of persistent and severe intercostal neuralgia, which may be due to trauma or follow herpes zoster, and the persisting localized pains due to aortic aneurysm or tabetic crises. There are other conditions which may be similarly treated,

but in general this method is used in those conditions presenting pain in which the distribution of the pain corresponds to particular nerve roots. The results after either severance of the involved nerve or the posterior root sections usually give permanent results.

The group of diseases or conditions treated by the third method, chordotomy or tractotomy, is represented by extensive malignancies involving various portions of the body, particularly areas aside from the head. One usually chooses these methods in cases of bilateral pain, where the pain shows a tendency to spread. As an example in which chordotomy is used, one thinks of far advanced malignancy with metastasis to the pelvis, long bones or spine, or a painful pelvic malignancy which spreads to neighboring structures. In these cases one can produce anesthesia up to a level depending upon the depth of the incision into the cord. There are, however, limitations existing in this method. It is not feasible to produce anesthesia in the upper extremities because of danger of producing respiratory disturbances, since the incision in the cord would of necessity have to be quite high up in the cervical cord. In addition, bladder disturbances occasionally follow a bilateral chordotomy, although these are usually temporary. Rarely, after a chordotomy, the patient continues to complain of pain in the involved area; when this occurs, we believe that in at least 95 per cent of the cases the incision was not sufficiently deep. Another explanation, however, is that the remaining pain sensation is carried through the sympathetic chain; however, this point is still in dispute. Recently, certain sensory pathways have been divided within the medulla to produce anesthesia in the face or at higher levels than can be accomplished by chordotomy. This method has been found effective in some cases of trigeminal neuralgia, in malignancy of the face and neck, and in some cases of painful affections of the upper extremities. These two methods are usually chosen after other procedures have failed, since they require major surgical procedures, but if the cases are wisely chosen, they produce gratifying results. They are usually reserved for a

malignancy which is hopeless as regards therapy directed toward the primary disease, but we feel justified in carrying out such measures for relief of pain even though the patient may have a life expectancy of less than one year. At least we can make their remaining months of life painless and this one often cannot accomplish even with very large doses of narcotics.

Those of you who are familiar with Lerich's work on "Surgery of Pain," or White's text on the autonomic nervous system, undoubtedly have a clear conception of the possibilities for relieving pain by the various surgical or non-surgical measures directed against the sympathetic nervous system. A great volume of work has been done in recent years on sympathetic surgery and each year many new diseases and painful conditions are added to the list already proven to respond to sympathetic surgery. The results have in some instances been at variance, but there are several diseases and conditions about which there is no question of their response to sympathetic surgery. The early cases of Raynaud's disease and thromboangiitis obliterans, as well as scleroderma and erythromelalgia show almost dramatic response to interruption of the sympathetic nerve supply to the affected part. In addition, many cases of disabling angina pectoris have lived for many months after sympathetic denervation without pain, although having during these times clinical evidence of progressive myocardial disease and even infarction. To this list may be added the procedure of presacral neurectomy for incapacitating dysmenorrhea and for some types of distressing bladder conditions. In referring to the latter, one thinks of those painful bladder afflictions in women associated with bladder spasm or in elderly individuals since this procedure cannot be used in men of reproductive age, as loss of the ejaculatory mechanism results. Probably some of the most gratifying results in sympathetic surgery have been obtained in the disabling causalgias and in the acute arterial occlusions, and most recently in the acute cases of thrombophlebitis. The

various causalgias came into prominence after the last war and represent some of the most trying of all conditions to treat as regards the relief of pain, but those which do respond to sympathetic denervation do so in an almost dramatic fashion. At this point one must refer to the syndrome referred to as phantom limb. Individuals presenting this syndrome show pain in and distressing awareness of previously amputated extremities or parts. In some cases complete denervation by means of a posterior root resection itself changes very little the intensity of the agonizing pain which these individuals suffer, but quite frequently interruption of the sympathetic pathway brings about relief. In two instances in my experience relief of pain has not been brought about until the proper sensory area in the cerebral cortex was removed. The atypical neuralgias due to vascular disease, especially the so-called atypical facial neuralgias, have shown a fairly consistent response to interruption of the sympathetic chain to the part as have a few of the chronic post-herpetic afflictions, particularly the post-herpetic supraorbital neuralgias. The facial neuralgias which fail to respond to various conservative measures often respond to section of the arteries supplying the part and thus interrupting the sympathetic supply. Those of you who have tried in vain to relieve the constant pain of chronic post-herpetic supraorbital neuralgia know full well the difficulty, but in a large number of cases removal of the stellate ganglion in the neck brings about relief. Time will not permit a more complete discussion of this particular phase of the relief of pain, but I have tried only to briefly list those conditions about which there is little controversy.

In this discussion I have purposely omitted any mention of the various measures used in the treatment of such conditions as herniated intervertebral disc, the scalenus anticus syndrome, and various types of headache which one encounters. Time is too limited to discuss the disc problems or the problems encountered in treating various types of headaches. Either of these topics would require full discussion in themselves.

NEWS ITEMS

The Georgia Medical Society, Savannah, held its regular monthly meeting on March 23. A motion picture on "The Diagnosis of Urologic Conditions" was shown.

Dr. Hal M. Davison, Dr. Harold Bowcock and Dr. Elkin Vogt announce their association for the practice of medicine with offices in Suite 207 Doctors Building, 478 Peachtree Street, N. E., Atlanta. Practice will be limited to internal medicine and allergy.

The staff of the Department of Medicine of Grady Hospital, Atlanta, met on March 28. Titles of reports of cases discussed were: "Post Measles Encephalitis," "Superior Mediastinal Obstruction" and "Care of Cord Bladder."

Dr. Charles E. Hall, Jr., announces the opening of his office in Suite 1105 Doctors Building, 478 Peachtree St., N. E., Atlanta.

Dr. O. Emerson Ham spoke before a meeting of the Parent-Teacher Association at the Richard Arnold Junior High School, Savannah, March 11.

Dr. W. Frank Wells spoke at Grace Methodist Church, Atlanta, on March 14. He is chairman of the Board of Stewards of the Hapeville Methodist Church.

Three members of the faculty and three students of Emory University School of Medicine, Emory University, were initiated into Alpha Omega Alpha on March 3. Members of the faculty were: Dr. R. A. Bartholomew, Dr. Arthur J. Merrill and Dr. Eugene A. Stead. They were also elected to alumni membership.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, April 1. Titles of papers on the program were: "Highlights of Radiology for 1942" by Dr. Jas. J. Clark; "Tropical Medicine in This Country After the War," Dr. Arthur J. Merrill. The papers were discussed by Dr. Wm. Platt and Dr. Elizabeth Gambrell. Representative of Sharpe & Dohme showed a moving picture, "Preparation of 'Lyovac' Blood Plasma."

The Seventh District Medical Society met at Marietta April 7. Titles of Scientific papers on the program were: "Treatment of Septic Meningitis" by Dr. M. Hines Roberts, Atlanta; discussion was led by Dr. M. M. McCord, Rome, and Dr. Wm. Mitchell, Smyrna, "Report of Cases," Dr. George Smith, Rome; discussion led by Dr. William Harbin, Rome, and Dr. H. J. Ault, Dalton. "Cancer of the Breast: Cautery Incision Supplemented by Implantation of Radium and Followed by Deep Roentgenotherapy—Illustrated with Motion Picture in Colors and Lantern Slides," Dr. Edward T. Newell and Dr. Cecil E. Newell, both of Chattanooga, Tenn.; discussion led by Dr. W. H. Perkinson, Marietta, and Dr. Trammell Starr, Dalton. "Bleeding at the Menopause," Dr. C. B. Upshaw, Atlanta; discussion led by Dr. P. O. Chaudron, Cedartown, and Dr. S. M. Howell, Cartersville. Committee on Arrangements were: Dr. W. H. Perkinson, chairman; Dr. L. L. Welch, and Dr. A. H. Fowler, all of Marietta; and Dr. J. W. Ellis, Kennesaw. Officers were elected for the ensuing year.

Representatives of Sharp & Dohme, Philadelphia, showed a technicolor film, "The Story of 'Lyovac' Normal Human Plasma" before a meeting of the Fulton County Medical Society, Atlanta, April 1.

Dr. Hulett H. Askew announces the opening of offices at Suite 310 Doctors Building, 478 Peachtree Street, N. E., Atlanta. His practice will be limited to diseases of the rectum and colon.

The Bibb County Medical Society met at Ridley Hall, Macon, April 6. Dr. Olin H. Weaver read a paper entitled "Shock."

The regular staff meeting of Emory University Hospital was held on April 6. Dr. C. W. Strickler, Dr. Roy R. Kracke, Dr. J. E. Scarborough and Dr. Jas. J. Clark discussed "Multiple Myeloma." A technicolor picture, "Sutures Since Lister," was shown.

The Second District Medical Society met at Albany April 8. Titles of papers on the program were: "Drug Eruptions of the Skin—Lantern Slides" by Capt. R. M. Reifler, M. C., Turner Field, Albany; "Sulfadiazine Calculi Obstructing the Urinary Tract—Report of Case," Dr. J. C. Keaton, Albany; "Gunshot Wounds of the Abdomen—Report of Case," Dr. A. B. Jones, Quitman. Other doctors on the program with subjects announced at the meeting were: Dr. W. A. Selman, Atlanta, President-Elect; Dr. I. W. Irvin, Albany.

The Forest Hills Hotel, Augusta, has been converted into a hospital, known as the Oliver General Hospital.

Dr. V. P. Sydenstricker, Augusta, spoke before a meeting of the Augusta Lions Club on March 19.

Dr. C. Hall Farmer, Macon, has qualified as a certified pediatrician by the American Board of Pediatrics.

Dr. J. Elliott Scarborough, Emory University, director of the Winship Clinic, spoke before a meeting of the Woman's Auxiliary to the Fulton County Medical Society on March 2.

The Eighth District Medical Society met at Waycross April 13. Titles of addresses and papers were: "Address of Welcome" by Dr. B. H. Minchew, Waycross; "Response to the Address of Welcome," Dr. M. E. Winchester, Brunswick; "Brill's Fever," Dr. Kenneth McCullough, Waycross; "The Premature Baby," Dr. Alton M. Johnson, Valdosta; paper by Dr. Dan Jardine, Douglas; "Sore Throat with Little or No Pathology in the Pharynx," Dr. W. C. Thomas, Brunswick. Officers of the Society are Dr. T. V. Willis, Brunswick, president; Dr. G. E. Atwood, Waycross, vice-president; and Dr. G. T. Crozier, Valdosta, secretary. fl

The Georgia Medical Society, Savannah, met at the Marine Hospital April 13. Dr. S. T. Hall and the staff of the hospital made up the program.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, April 15. Titles of scientific papers on the program were: "Highlight of Neurology for 1942" by Dr. Wm. A. Smith; "Modern Treatment of Perforative Appendicitis," Dr. T. C. Davison and Dr. A. H. Letton; discussed by Dr. C. Griggs Thomason and Dr. Joseph C. Read.

The Bulletin of the Fulton County Medical Society, April 15 issue published articles entitled: "President's Message" by Dr. George W. Fuller, which extends a cordial invitation to the members of the Medical Association of Georgia to attend its Ninety-Fourth Annual Session, May 11-14. One page is devoted to "Highlights of the (Association's) Program." Other space is given to invitations from the Woman's Auxiliary and the secretary of the Fulton County Medical Society. "Credit Where Credit Is Due" mentions a few things which Dr. Shanks, Secretary-Treasurer of the Association and Editor of THE JOURNAL, does and a few of his achievements. Other articles, "The March of Organized Medicine" and "A Review of Hematology in 1942" by Dr. Roy R. Kracke.

WE KNOW YOU WILL UNDERSTAND

Due to heavy wartime demands — crowded conditions will exist — lateness of trains will occur — modern type of equipment cannot be furnished in all cases.

When victory comes and our present job is done you will continue to have our every consideration.

AT WAR — WORKING FOR PEACE IN PEACE WORKING FOR YOU.

CENTRAL OF GEORGIA RAILWAY COMPANY

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

VOL. XXXII

Atlanta, Georgia, May, 1943

Number 5

SOME URGENT NEEDS FOR MEDICAL ADVANCEMENT

JAMES AUGUSTUS REDFEARN, M.D.
Albany

The practice of medicine which originally centered around drugs and secret formulas along with barber surgery has changed so much until now it blankets many allied fields. The term seems inadequate now. "The healing art" is no longer applicable because preventive medicine comes first. I have endeavored to bring to your attention this broader viewpoint of the medicine of today, and what I believe to be the medicine of the future.

I have tried to arouse interest in nutrition among doctors and other citizens of Georgia. The importance of proper food was impressed on me particularly when I read a communication from Washington, D. C., in which Major General Lewis B. Hershey, Director of our Selective Service, stated that one-third of the first million draftees in this war were rejected because of physical defects. Faulty nutrition accounted to a considerable degree for this procedure by our public officials. In fact, the statement came out of Washington that the most vital matter before our people, save winning the war, is a balanced diet. After the war, then proper nutrition again heads the list. When thinking about the many vital matters that build character and build good citizenship, and thus build progressive communities and an enduring nation, the breadth and depth of this claim should arouse all of us to action.

Many other organizations and agencies throughout the nation are working diligently to stimulate interest and increase knowledge among our people in properly nourishing their bodies. Federal food warehouses

have been located in every county in the United States to dispense surplus commodities, to prevent suffering and to build a more virile people. All schools in Georgia are invited and urged to participate in the free lunch program. In some schools children who were considered dull made two grades in one year after receiving these school lunches.

Leaflets and folders have been furnished freely by the Georgia Department of Public Health and the Federal Government outlining in pictures and words the foods containing the essential food elements, and explaining how they may be fertilized and grown at home to yield the necessary vitamins and minerals. Students of this question teach that doctors and specialists in all branches of medicine can render a great service by explaining the needs of balanced diets in fighting diseases and curing patients, many of whom cannot pay for prescriptions for vitamins and minerals when needed. Dr. V. P. Sydenstricker, of Augusta, Professor of Medicine at the University of Georgia School of Medicine, says that there are several hundred thousand tenant farmers in Georgia who are advanced by supply merchants and warehousemen four to ten dollars per month per family, several months each year, that are existing on faulty diets lacking in protective vitamins and minerals which, if supplied on prescription, would cost monthly four to five dollars a person. He advocates the cow, chickens, and a good vegetable garden as economic solutions for all farm families and city dwellers, too, where possible. We can greatly help our communities by supporting such plans.

It was my expressed desire to attend one meeting in each congressional district in Georgia during the past twelve months to which the public was invited to hear an authority from one of our medical schools,

President's address before the Medical Association of Georgia, Atlanta, May 13, 1943.

colleges, or universities discuss nutrition. War prevented these meetings but war has aroused people throughout our State and nation to study this question and plan, through foods, healthier citizens.

Six separate balanced diets have been prepared by our government for soldiers which help to keep them fit. Too little was known about foods in the first World War to have a properly balanced diet. Thus you see knowledge of nutrition is of recent date and has not yet been fully grasped even by the medical profession. We should quickly understand the great importance of this subject and explain it to our people who look to us and trust us. If we dismiss our patients with a handful of vitamin prescriptions, such as they hear discussed through their radios and read about in newspapers and magazines, they will rightfully conclude that we are not fully informed. Vitamins are not drugs; they are food!

A patient and full explanation of the economic source of the essential food elements along with the fact that our people are wasting millions of dollars annually for vitamins alone, will impress many with the idea that their physicians guide them through avenues of health and economy. Here you may then explain that there are certain diseases that require increased dosages, but this is something to be worked out by doctors and not by vitamin salesmen found now even in the dime stores.

Tuberculosis

Tuberculosis has been discussed by me in the district medical meetings and before some lay groups with the hope of arousing our doctors and people to study and attack this disease in the way outlined about twenty-five years ago in a resolution by the National Tuberculosis Association, and adopted by the American Medical Association, the American Hospital Association and the Medical Association of Georgia. The plan is to build wards to general hospitals where curable cases may be cared for. It is considered the economic and safe way. Perhaps the ideal way would be the building of several other large hospitals about the State as advocated by Dr. H. C. Schenck in charge of the tuberculosis program for the State Department of Public Health. This

would cost millions of dollars, which are not available in Georgia now. The question is often raised about erecting such buildings isolated from hospitals, but this too greatly increases the cost of x-ray examination, operating room, properly prepared food, laboratory and good nursing care, all of which are necessary. Few communities can afford this luxury.

Dr. T. F. Abercrombie, Director of the Georgia Department of Public Health, is of the opinion that the buildings at Alto where the Negro tuberculosis patients live are unsuitable and should be abandoned. He advocated the erection of a building somewhere in South Georgia to care for these patients, part of which should be used for custodial care. Since about four times as many Negroes as whites are in need of tuberculosis treatment, the situation is alarming due to congested living quarters and poor resistance of tuberculosis patients.

It has been estimated by the authorities on tuberculosis that about a million Georgians would react to the tuberculin skin test. Probably ten thousand of our citizens have active tuberculosis in the treatable stages and many others are far advanced and incurable. These last named may be isolated in any comfortable quarters and, of course, not sent to hospitals. It is not pleasant to admit and treat tuberculosis patients in our hospitals, but it seems to be the only way to save many young people who want to get well and take their rightful places in society.

Tuberculosis is considered the easiest of the major diseases to control, but if left untreated the disease may ultimately infect 100 per cent of the people in congested areas. I question the right of our hospitals built with public funds to deny admission to these young sufferers. If we remain indifferent the time may soon arrive when tuberculosis will be considered a public health problem and treated medically and surgically by state-employed physicians and surgeons. Remember, in Georgia more people die from this disease between the ages of 18 and 45 than any other disease, and an increase in morbidity and mortality is expected here and throughout the world after this war. In my opinion it would be

best for us to accept the challenge and attack this killer of our young people, but if we do not then let us encourage state medicine to come to their rescue.

Maternal and Child Health

There were 321 maternal and child health centers in operation in Georgia last year, and the attendance at these centers showed an increase of 10 per cent. Only 60 per cent of the midwife deliveries were admitted to these centers. Many thousand babies in the Empire State of the South were delivered by midwives last year!

There is acute need for more and better maternal care according to the Committee on Maternal Mortality and Infant Deaths of the Medical Association of Georgia, and our State Department of Public Health. It is a strange fact that we appear satisfied to have midwives deliver thousands of our babies without the care of doctors. The ideal way would be for every mother to be taken to a hospital for delivery by physicians, if possible. Poverty is the main reason why this is not done. Here is an opportunity for civic clubs to render noble service of lasting benefits to distressed mothers and their babies. If hospital beds are not to be had, then delivery rooms could be maintained in most communities whether hospitals are available or not.

Abuse of Sulfonamides

Medical literature for months has warned against improper use of these remarkable drugs. It is a mistake to use any one of them against a disease for which authorities have found the drug of no value; for example, in influenza, infectious arthritis, acute rheumatic fever, and most of the virus diseases, notably colds. It is wrong to give large doses when smaller ones would suffice. The drug is optional in many diseases that were treated fairly satisfactorily before the sulfonamides were discovered. Therefore, the sulfa drugs should be stopped at the first signs indicating toxic effect of the blood, kidneys, or skin; and only physicians are qualified to recognize the danger signs.

Sensitivity to the sulfonamides is a most important matter to bring to the attention of our patients, for chill, high fever, skin rash or pruritus may occur weeks or months

after a course of sulfonamide treatment, when a few tablets of this group of drugs are again taken. We should avoid use of these drugs except when they are necessary. Many of us could recite experiences with these drugs: I saw a patient 80 years old recently who had temperature above 103 F., which had existed for three days according to her statement. Physical and laboratory examinations offered no clues but a second round of questions brought to her mind that she had ordered a dozen sulfathiazole tablets and had taken nine of them during three days. Apparently the first one caused a rapid rise in temperature. Three months prior to this illness her physician had prescribed sulfathiazole which she took with satisfactory results. Abuse in the use of the sulfonamides may cause death.

Instruments of Precision

The practice of medicine during some of our early lives was quite simple when compared with today's complex methods. For the most part doctors have continued to maintain separate offices and at the same time purchase expensive equipment necessary in the practice of modern medicine. As a result of these investments costly instruments are used infrequently because the rates for their use are higher than most patients can afford to pay.

Group practice has been advocated and practiced to some extent for many years but apparently without any idea of reducing the fees charged to the people whom we serve. This must be done if the public as a whole receives the many present-day advantages in the diagnosis and treatment of their ills. It is an economic necessity.

I favor diagnostic centers in all progressive communities with trained assistants where the masses may receive adequate care at reasonable rates. Every doctor through study and postgraduate work could then specialize in certain diseases with improved service to the people. Fewer but better instruments could then be used at reduced cost and greater efficiency would come, which would help patients and doctors, too.

Venereal Diseases

In some communities syphilis has infected 75 per cent of Georgians. Gonorrhea

is taken for granted. Chancroid and granuloma inguinale are common; the latter often not recognized. Shame and secrecy which amount to ignorance have caused the spreading of these diseases. Public health through publicity is now aiding through educational literature, moving pictures and free drugs. Schools are helping by frank discussions with students. Doctors are working at charity and semi-charity clinics, and treating private patients. Good moral habits are recommended by all. With such programs we shall win, but the battle no doubt will be long and difficult. Already syphilis alone has kept out of military service almost one hundred thousand young Georgia men, according to news reports.

We should unite with other groups in a plan of education, prophylaxis, early and adequate treatment without reproach or abuse but rather through sympathetic understanding and guidance.

Nervous Patients

The so-called nervous patients are really mental problems. It is believed that 90 per cent of them may be treated by the general practitioner, particularly if cared for as children or young adults.

Learn to think in terms of organic diseases and psychic disorders. Nearly half of your patients are partly or wholly in the latter group, most of whom you can teach to adjust their difficulties through determination to control these disturbances rather than allowing them to take over the controls. These nervous disorders may simulate in many individuals any known organic disease symptoms, including the most severe pains. Neither the patient nor the physician can determine the difference without a thorough study of the somatic conditions. If found organically sound, the patient should then be told that the complaints are from the nervous-mental mechanism which will respond to sufficient effort to control them.

Treatment consists of avoiding most drugs, operations, and other somatic treatments in favor of mental adjustments. This plan is advisable in the various specialties as well as in general practice. Ten per cent or slightly more of these patients should be referred to the psychiatrist. This plan can

help many people and at the same time greatly benefit medicine.

In conclusion, I should like to say that there are many other medical problems before us. Time will not permit discussing all of them. I have invited your attention to those which, in my opinion, should have our immediate attention. In all of them the Medical Association of Georgia will, I am sure, do its part. This Association is older than any of its members; and may it live for all time to help in the advancement of a greater medicine — a medicine that will do the most for the majority of our people.

SYMPOSIUM ON THE ROENTGENOLOGIC PROBLEMS OF THE GASTRO-INTESTINAL TRACT

LESIONS OF THE ESOPHAGUS AND STOMACH

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The sections of the alimentary canal, the esophagus and stomach, assigned to me for discussion in this symposium are subject to many and varied lesions which give rise to a multitude of symptoms. It is my object to present to you only a few of these lesions, most of which are of the type that you, as clinicians and surgeons, have to deal with in your every day practice.

When frank symptoms of lesions in the gastro-intestinal tract appear the clinician will attempt to arrive at a diagnosis from the history, physical signs, results of clinical tests and the knowledge he has gained through experience. Often by his own methods alone a capable clinician can adjudge the general situation and determine the nature of the lesion with admirable accuracy. But even in such instances no one realized more keenly than the clinician himself that his diagnosis is not complete without roentgenologic examination to confirm his opinion as to the nature of the lesion, and to determine its exact site and size and the presence or absence of complicating factors. In fact, there are only a few gastro-intestinal lesions in which the clinical

data are decisive and the diagnosis can be established without roentgenologic investigation. This consideration applies especially in cases in which the lesion is small, where there might be occult bleeding from the canal and the symptoms vague and atypical. In cases of hemorrhage from the canal it is never safe to attribute the bleeding to hemorrhoids solely because they are present, and examination with roentgen ray is necessary to determine whether or not there are also other lesions somewhere in the canal.

It so often occurs that hemorrhage is the only symptom of gastro-intestinal lesions. In these cases the first thought usually is of peptic ulcer. This inference is logical, for peptic ulcer is so frequently the source of gastro-intestinal bleeding; however, it should not be held to the exclusion of other causes.

Esophageal varices is one of the most common lesions in which hemorrhage is the only symptom, and is often difficult to diagnose as the distended vessels cannot always be demonstrated roentgenologically. In all cases of hematemesis a thorough roentgenologic examination of the gastro-intestinal tract should be made and if no lesions are demonstrated, esophagoscopy should be resorted to.

Of all the lesions involving the gastro-intestinal tract, carcinoma is one of the gravest. No form of cancer in any location is attended by a prognosis more serious than carcinoma of the esophagus. Since it is situated in a difficult surgical field, the curability of esophageal cancer is similar to that of cancer of the lung or pancreas for which treatment, however radical, is usually unsuccessful. The medical profession as a whole has a justifiable attitude of pessimism concerning the treatment of this disease for the end-results have been discouraging. Although some degree of success has been obtained in a few cases by surgery, radiation therapy has been relied upon as the method of treatment. It has been recorded that 2 per cent of all cancer deaths in the United States are due to carcinoma of the esophagus.

Of the two varieties of peptic ulcer, the gastric variety is encountered much less

often than the duodenal variety. Peptic ulcers are comparatively easy to diagnose and the roentgen-ray rarely fails to establish the diagnosis by revealing the niche or some form of filling defect or deformity. In addition, the roentgenologic examination furnishes valuable information as to the extent of the lesion and the degree of activity.

The fundamental roentgenologic sign of gastric ulcer is, of course, the barium filled crater, the so-called niche. The niche usually appears as a prominence in the gastric wall and has a smooth margin and varying considerably in size projecting beyond the line of the gastric lumen. Benign gastric ulcer is characterized by non-elevation of its margin, accentuation of the rugae toward the center, tenderness on pressure and the history of pain.

As to incidence of gastric and duodenal ulcer, there seems to be a marked discrepancy in published statistics. To some extent this may be explained by the different methods of study used, some figures being derived from autopsied cases, others on clinical observations, with or without roentgenographic examinations. Formerly gastric ulcers were believed to be more numerous than duodenal, but today all statistics reverse the incidence. In 1936 the Mayo Clinic reported that 1,191 patients had been found at operation to have gastric ulcer and 4,532 with duodenal ulcer, a proportion of 1.4. In my personal experience, based upon clinical and roentgenologic findings, there has been nearer 1.8 and slightly more frequent in women.

As with the esophagus, cancer is the most serious lesion that involves the stomach. Gastric cancer is seldom diagnosed sufficiently early for effective treatment. This is because there are no early symptoms. Again here we have another frequent cause of gastro-intestinal hemorrhage which, in some cases, might be the first and only symptom. As stated previously, peptic ulcer is usually accompanied by pain, but this is not true with early gastric cancer. Whether it be hemorrhage, pain or some other symptom that prompts the patient to consult his doctor the greater percentage of cancers are

fairly well advanced when they are diagnosed. I have seen a few cases in which the disease had advanced to almost complete obstruction at the pylorus before there were severe enough symptoms to drive the patient to his doctor.

The differentiation of benign and malignant gastric lesions is not always an easy task for the roentgenologist. In cases where ulceration is present, the location of the lesion may be a valuable clue as to the probability of malignancy. Edema surrounding a benign ulcer may stimulate the infiltration of a gastric neoplasm, particularly when occurring on the lesser curvature. This is likewise true in the presence of pyloric stenosis brought about by duodenal ulcer. The regularity of the margins presents a distinctive diagnostic feature. In certain cases the differential diagnosis between ulcer and cancer is extremely difficult if not impossible to make.

DIAGNOSTIC METHODS UTILIZED IN THE STUDY OF THE COLON WITH CONSIDERATION OF THE VARIOUS TYPES OF DISEASE FOUND

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It is impossible to consider this subject in ten minutes and I will, therefore, confine my remarks to certain fundamental principles.

X-ray examination of the colon requires careful attention to technical details, in order that lesions in this portion of the bowel may not be overlooked. A complete knowledge of the case history is important. Colon studies are usually made in three types of cases: First, the patient with the chronic abdominal complaint, which is apparently referred to the colon. Second, the acutely ill patient who enters the hospital with a distended, rigid abdomen and clinical evidence of either obstruction or some serious disease. Third, the study of the colon in infants and children with acute or chronic symptoms.

In patients with chronic abdominal symp-

toms an opportunity is had for proper preparation, and by that I mean cleansing of the G-I tract thoroughly. This is important as gas and feces may simulate disease. The acute abdomen does not offer this opportunity and usually it is necessary to give the barium enema without any preparation.

In all of these examinations careful fluoroscopic study of the chest should be made, as frequently a cardiac or pulmonary lesion may simulate an acute or chronic abdominal disease. I have seen pneumonia and pleurisy simulate acute appendicitis, and also intestinal obstruction. The presence of a pulmonary tuberculosis may be noted and its effect on the colon considered.

In the acute abdomen a preliminary survey film should be made with the patient either erect or semi-erect. The film should extend from the pubic symphysis to well above the diaphragm level. This film should be immediately developed and checked for signs of intestinal fluid levels; generalized or localized distention of the large and small bowel, and whether or not free air is beneath either diaphragm. The presence of fluid levels in the large or small bowel indicates obstruction. If there is air beneath the diaphragm it means a ruptured hollow viscus. Information may also be obtained as to the gallbladder and renal areas.

The examiner should then obtain complete visual accommodation, spending at the minimum 15 minutes in the dark. This is very important as good visual accommodation is absolutely necessary for study of the bowel.

The enema tube is inserted. The barium enema should consist of about two quarts of fluid at body temperature and contain 25 per cent of barium. Some other vehicle such as malted milk, or acacia, should be added which will hold the barium in suspension for a reasonable length of time. The solution is allowed to flow slowly, and careful study of the rectal pouch and sigmoid is made, as later when the colon fills this area may be hidden by loops of barium-filled intestine. During study of the sigmoid advantage is taken of our ability to turn the patient into right and left oblique and lateral positions. These positions per-

mit visualization of the entire sigmoid loop and pelvic colon, an area which is frequently involved in disease. We then watch the enema pass up the descending colon, around the splenic flexure across the transverse to the hepatic flexure, and down to the cecum. As the flexures are distended the patient is again rotated obliquely, which separates the two limbs of the colon at each flexure, and permits their complete visualization. During this filling of the colon it is carefully watched for evidence of obstruction, or contour defects of the bowel, and by manual pressure we can determine points of fixation or adhesions. When the cecum is reached we can determine if the valve is open and whether or not the barium regurgitates well into the ileum, or if the ileum is distended with gas. It may help to syphon the solution from the rectum and sigmoid in order to permit better visualization of the cecum and pelvic colon. X-ray films are made in positions which best bring out the questionable areas. After this examination is completed the patient is allowed to evacuate the enema. During the time required for evacuation the film is developed and its appearance is compared with the fluoroscopic studies. It may be necessary to refill the colon with enema, or with air for contrast in the pursuance of further studies. After evacuation a second film is made and checked for retention of the solution in any particular area, also for diverticulæ or other abnormalities.

In the chronic cases we follow exactly the same technic, but usually they are easier to examine as they do not have distention, and are not acutely ill. In children and babies, cooperation of the patient cannot be obtained. A preliminary survey film of the abdomen is made. The barium tube is inserted, and if necessary the legs and body are immobilized by wrapping with a sheet or towel. The enema is started slowly, and we again watch its progress along the course of the colon, and if we meet with an obstruction we note whether the terminal end of the barium shadow is a sharp cut-off, or U-shaped. If U-shaped it usually indicates an intussusception. An effort may be made to reduce the intussusception by continuing distention of the colon, and

pressing with the hand on the bowel forcing the fluid toward the obstruction. The enema will act as a dilating water wedge, and if the intussusception is not too firmly anchored we are frequently successful in reducing it. If the intussusception has existed over six hours reduction will usually be unsatisfactory.

As the child's colon fills we note its position, size and shape, and whether or not any fixation is present. The child is allowed to evacuate the enema and a last film made which will show the mucosal pattern of the bowel and also accumulations of barium if partial obstructions exist.

There is danger to the patient and examiner if too long x-ray exposure is permitted; the R-unit output of the fluoroscopic tube should be known, so this may be avoided. The examiner should wear lead apron and gloves for his own protection. The amount of radiation received by the patient must be kept below an erythema dose.

Summary

1. Thorough visual accommodation.
2. Thorough preparation of the patient.
3. Knowledge of the history.
4. Trained observer.
5. Avoid over exposure to x-ray.

CHRONIC APPENDICITIS

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Perhaps no radiologist should discuss any phase of a gastro-intestinal examination without emphasizing that every such examination should be a complete one. By this I mean observation of the barium meal fluoroscopically and radiographically, at frequent intervals from the moment it leaves the pharynx until it is eliminated from the colon — or until the radiologist feels further examination is not necessary.

A story is told of an anxious mother who wrote to a child psychologist as follows, "My young daughter is fifteen years old. Should I have a frank talk with her about the facts of life?" He replied, "By all means do so. You'll probably *learn* a lot." Any physician examining the intestinal tract

radiologically will learn a lot by a complete examination which he will not learn if he merely does a fluoroscopic examination of the stomach and duodenum, makes a film or two and tells the patient to come back next Tuesday. There is so much overlapping in the symptoms of various abdominal lesions that it is doubtful if any clinician can always be sure that a given train of symptoms is referable to the stomach or duodenum. Any symptoms which justify a gastro-intestinal examination at all, justify a complete examination in justice to the patient, the radiologist and the referring physician. The only exception is the routine check-up on the known ulcer patient.

When we speak of appendicitis from the standpoint of radiology we naturally refer to chronic appendicitis. Of course we quite properly do not see acute cases, sometimes we see subacute ones.

Any discussion of chronic appendicitis is provocative of argument and I hope this paper will prove no exception. Attitudes vary tremendously from that of the doctor who says for lay consumption that there is no such clinical entity — on down to the up and coming young surgeon who removes the appendix from all his books. Some excellent clinicians raise their eyebrows when one mentions chronic appendicitis. Carman in the first edition of his book, now more than twenty years old, gave a few pages to the subject, and anyone who reads this chapter can feel an atmosphere of skepticism pervading his remarks — and remember radiologic study of the intestinal tract was well established at that time.

Perhaps the chief reason for the widespread skepticism is the fact that the diagnosis has been so widely abused and has been used as a peg on which to hang a diagnosis for various complaints, mostly functional. Thousands of appendices have been removed without the slightest benefit to the neurosis with which the patient was afflicted. We have heard the story of the woman who said to her physician, "Doctor, whenever I have nothing to worry about, if I sit quietly for a while I can always think of something." Of course any surgery on a patient of this type is apt to be disappointing.

Again there is no general agreement as to pathologic changes and factors. Time forbids any discussion of this phase, even if I were qualified to do so. My thesis is that there does occur disease of the appendix which is not acute, which produces more or less annoying symptoms, and that these symptoms are relieved by appendectomy. Whether we call the disease chronic appendicitis or something else is immaterial. The thesis has been proved abundantly by clinical experience, and as a practical matter we need not concern ourselves about fine points in the pathologic changes. Needless to say, what we describe as chronic appendicitis frequently is the residue from repeated subacute attacks as we shall see in several patients.

A word as to symptomatology. Usually the most striking point is the vagueness of the symptoms. The patient usually does not have a story which sounds like ulcer, although sometimes he does. It is not a typical gallbladder or urinary tract story. Often the patient complains of a vague feeling of uneasiness, discomfort, flatulence and the like. As one farmer expressed it, "Doc, I feel like I got too much guts." So what we should stress about symptomatology is that the symptoms do not as a rule conform to any of the well known patterns associated with abdominal lesions.

Now what do we find in the x-ray examination?

First, *there is a group of indirect signs seen in the upper abdomen in the early stages of the examination.* The pyloric end of the stomach has been called the fire alarm station of the abdomen. A wide variety of abdominal lesions will ring the bell in this firehouse. This obviously is the reason why vomiting occurs in so many abdominal conditions.

In this diagram we have a normal stomach in the center of the slide. We note it is saccular in shape, lesser curvature smooth, greater curvature indented by peristaltic waves of moderate depth, pylorus clear-cut, duodenal bulb smooth and regular. In the upper right we see the same stomach in a state of hypertonicity when it is more tubular in shape. In the upper left we see this stomach exhibiting hyper-

peristalsis, with three sets of waves, seen on both curvatures. These findings, hypertonus and hyperperistalsis, produce hypermotility and rapid emptying, the three signs constituting the so-called hyper-triad. In the lower left we see an area of gastro-spasm involving the antrum. In the lower right we see pylorospasm, with the bulb entirely missing, and the stomach ending in a blunt cone at the pylorus.

Now these signs were once called indirect signs of peptic ulcer. Some radiologists of the old "indirect school" would base a diagnosis of ulcer on these findings. But they are not signs of ulcer. They are signs of trouble somewhere. We see them in ulcer, gallbladder disease, urinary calculus, appendicitis, etc. Much to my embarrassment I once found that they occur in the toxemia of pregnancy even when the pregnancy had not had the blessing of the clergy. These are not signs of ulcer. They are signs of something wrong in the abdomen which can produce reflex disturbance in the stomach.

Second, *ileal stasis*. This occurs in all conditions where there is partial or complete obstruction in the right lower quadrant, and sometimes when actual organic obstruction is not present, on account of spasm of the terminal ileum. It may be stasis of barium only — sometimes it is manifest by a collection of gas in the ileum. As to what constitutes stasis of barium in the ileum, there is some latitude. In the average patient with normal gastric motility, from 40 to 60 per cent of the barium will have passed the ileocecal valve at 6 hours. From this we may infer that any ileal stasis much over 60 per cent at 6 hours is at least suggestive. Certainly a 6-hour ileal residue such as is seen in this case of postoperative adhesions is abnormal. Note the dilatation of the terminal ileum.

We are all familiar with the extreme intestinal flatulence seen in complete intestinal obstruction. If we stand such a patient up we find that fluid and gas in the intestine act as they do in other closed cavities and layer out, giving us multiple fluid levels. Here is a baby (shows slide) on whom an effort was made to demonstrate intussusception by enema. The enema did not reach far enough, but we see here the greatly

dilated ileum, characteristic of obstruction. The next is an ileal stasis incident to congenital malformations in the ileocecal region. I particularly mention this matter of extreme gas distention of the small intestine because it has a bearing on the finding of small amounts of gas in the ileum as we shall see later.

Third, *non-visualization of the appendix*. Great care is necessary in evaluating this finding. The appendix is a vestigial remnant of the large cecum of herbivora. It has the usual layers in its walls that the intestine has, it exhibits peristalsis and there is no reason why it should not allow the barium to enter. We think the normal appendix almost always does. But we know that the appendix fills and empties in a slow rhythm and we may never see it when it is full. Again it may be hidden by the cecum, and empty when the cecum does, as it should, and we do not see it. Hence we accept the apparent non-filling of the appendix with caution. It would be a valuable sign if you could always be sure of the fact.

Fourth, *appendiceal stasis*. The normal appendix should empty when the cecum does — or soon thereafter. When we find the barium remaining in the appendix long after the cecum is empty — sometimes for many days — it is important. Stasis in the appendix is as abnormal as stasis in the gallbladder after fatty food.

Fifth, *fixation*. The appendix should be able to wiggle around like a worm on a fish-hook. If we can demonstrate that it is abnormally fixed at any point, it is a valuable finding. It is easy to be fooled on this point as we shall see.

Sixth, *alteration in lumen*. The lumen of the appendix should be of about constant calibre throughout. Any marked alteration at any point, as a narrow point or a bulbous expansion is noteworthy. We often see an appendix broken into segments and resembling a string of beads. This usually is due to fecaliths, which mean stasis, which means potential disease. Uniform constriction of lumen in older people is a physiologic phenomenon and does not necessarily mean disease. It is the fibrosis which occurs with age.

Seventh, *tenderness*. This is a clinical sign of course, but it is also a radiologic sign because the radiologist can see the appendix as he palpates and can be sure the tenderness is over the appendix and not just in its general neighborhood. Sometimes we can find a tender spot over the appendix no larger than a finger tip. But tenderness is not necessarily present as we shall see from the cases.

Eighth, *spastic phenomena*, especially spastic colon, often accompanying appendicitis and many other lesions. Relatively unimportant.

Ninth, *gas in the ileum*, not the massive accumulation of a complete obstruction, but usually a small collection in the terminal ileum. So far as I can ascertain very little has been written about this phenomenon. Just why we find plenty of gas of one sort or another in the stomach and in the colon, but rarely see it in the small intestine, I will leave for the physiologists to explain, but it is a fact. But I am quite sure that any material amount of gas in the terminal ileum is always abnormal except after an enema when it may have been forced back from the cecum. I believe it always means trouble just ahead, often of a mildly obstructive type. We shall see some examples of this.

Finally, *there must be correlation of radiologic and clinical findings*. This is the job of the clinician and it is an important one. After he gets a report of chronic appendicitis from the radiologist it is for him to decide whether it is really the appendix that is working on the patient or whether his or her trouble is above the clavicle. He knows his patient and can determine these things much better than can the radiologist who has only seen him a few times. Whatever the x-ray report may be, the wise clinician always remembers that he is dealing with a whole patient and not just with an appendix.

Report of Cases

Case 1. A woman, aged 37, was having a gnawing type of epigastric pain, usually when stomach was empty, some pain in RLQ, flatulency. On x-ray, pylorospasm; irritability of bulb, later hyperperistalsis and rapid emptying were noted. No ileal stasis, appendix long, narrow lumen, slightly tender, 48 hour stasis of barium. Operation: Appendix long, large in diameter, but with

narrow lumen, walls fibrotic. Complete relief after appendectomy.

Case 2. A man, aged 32, had gas and discomfort after eating, relieved by soda. More or less ulcer history. But on x-ray examination the stomach and bulb were normal, there was a rather large ileal residue at 6 hours, appendix long, curved and thought to be adherent to ileum. Practically no tenderness. Operation: appendix large, long, but non-adherent, many hard fecaliths; pathologist reported round cell infiltration of thickened walls. Symptoms entirely relieved by operation. Our efforts in this case would have been a failure if we had merely examined the stomach and duodenum.

Case 3. A girl, aged 19, indefinite pain in RLQ. No other symptoms. X-ray showed stomach and duodenum normal, hyperperistalsis and hypermotility. All barium had passed the ileo-cecal valve at 6 hours. Instead of stasis we had hypermotility in small intestine. Appendix long, slender, breaks in lumen, 48-hour stasis. Tender. Operative findings not available but patient is entirely well.

Case 4. A woman, aged 40, had recurrent attacks of upper abdominal pain with nausea and vomiting for one year. Never radiated or settled in RLQ. Normal between attacks. X-ray showed hypertonicity of stomach, hyperperistalsis, 2/3 empty in half hour. At 3 hours, although barium had been in ileum for 2 hours, none had passed valve, but there was no abnormal ileal residue at 6 hours. Frequently change of pace like this is seen. Appendix narrowed, movable, not tender. At operation the appendix was fibrous, thickened, not adherent. Patient was completely relieved.

Case 5. Age is no bar. This woman was 71 and had repeated acute or subacute attacks for many years. X-ray showed gastric hyperperistalsis and rapid emptying although the stomach was ptosed. Rapid intestinal motility, all barium passed valve at 6 hours. Appendix retained barium 72 hours and definitely fixed. Tender. Operation: appendix thick edematous, adherent at mid-point and at tip. Appendectomy with complete relief.

Case 6. Husky young women of 37, athletic. For five years had difficulty in lower quadrant described as feeling of tenseness. Constipated. Occasional nausea. No vomiting. X-ray: gastric emptying sluggish, requiring 5 hours. Stomach otherwise normal. At 6 hours slight abnormal residue of barium in ileum but a decided accumulation of gas in terminal coils. Operation: appendix subacute, also a membranous veil at ileocecal valve causing obstruction. Complete relief.

Case 7. History and x-ray findings very similar to previous patient, except there was hyperperistalsis and rapid emptying of stomach. At 6 hours, although there was no abnormal residue of barium in ileum, there was much gas. Appendix kinked, apparently fixed and retained barium 72 hours. At operation appendix 6 inches long, adherent, adhesions involving ileum. Appendix removed, adhesions broken up and some pelvic repair done. We cannot trace this patient but she was operated on 5 months ago and the surgeon usually hears from an unrelieved patient in a big way, so we may assume this patient is well.

Case 8. A girl 7 years old had cramp-like abdominal pains at intervals for a year, often every few weeks.

Sometimes vomits. Slight fever in attacks. Pain begins at epigastrium and radiates downward. Good appendix history, of course. Shown for a particular sign. Usual upper abdominal findings. And although the stomach was empty in 2 hours, we found at 3 hours marked crowding of barium in the small intestine; usually it is spread out. Looks like it had no place to go. This was probably due to spasm of lower intestine. This patient also had ileal gas. She had another attack shortly after the x-ray series, was operated upon. The appendix was almost acute, was adherent to the ileum. Now in this case there was no material tenderness at the time the child had the G-I series. Another case of appendicitis, shortly becoming acute, but *without tenderness*. Note also that she had gas in the ileum and we found the appendix adherent to the ileum.

ROENTGENOLOGIC STUDIES OF THE GALLBLADDER

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Three years after the discovery of x-rays by Roentgen gallstones were demonstrated by Buxbaum. However, it was soon found that the percentage of gallstones that would cast a shadow on the x-ray negative was rather low due to the small amount of calcium salts found in such stones.

Phenomenal strides were made in x-ray technic, demonstrating gallstones with a minimum amount of opaque salts in them. Many gallbladder shadows were outlined where no gallstones could be demonstrated and some roentgenologists thought that a gallbladder that could be demonstrated on the roentgenogram was a diseased gallbladder. Gallbladder surgery and pathologic study soon exploded this theory. However, this trend of opinion was an indication that the roentgenologist was concerned about the diseased gallbladder as well as showing the presence of gallstones.

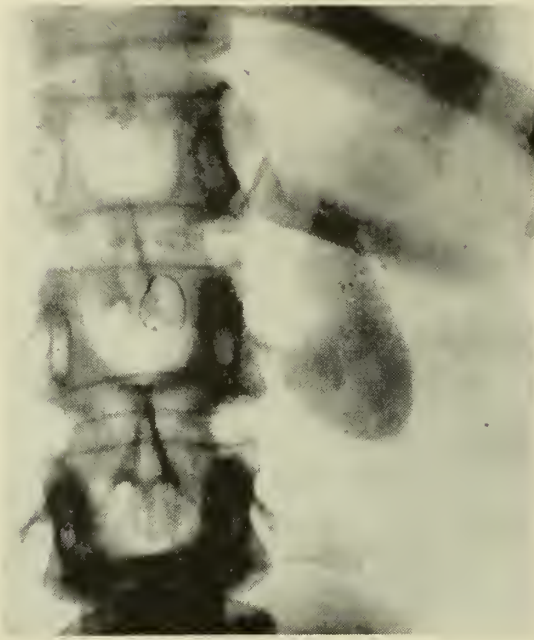
The experiments of Abel and Rowntree with the phthalein derivatives, in 1909, paved the way for epoch-making strides in our knowledge of gallbladder function and disease. Those experiments proved that phenoltetrachlorophthalein, when given subcutaneously, was excreted only through the bile. However, it was fifteen years later when Graham, Cole, Copher and Moore vis-

ualized the gallbladder on a roentgenogram following the intravenous administration of sodium tetrabromophenolphthalein. While these experiments met the roentgen requirements of filling a hollow viscus with an opaque material it marked the beginning of a long period of experimental work to establish a satisfactory technic in cholecystography and discovering some modification of the opaque material that would be better tolerated by the patient. After experimenting with many different phthalein salts it was found that tetraiodophenolphthalein met satisfactory radio-opaque requirements and this preparation is in universal use at the present time. In the early experimental period of cholecystography practically all of the dye was given intravenously but on account of systemic reactions the oral method soon became the method of choice.

Cholecystography has added much to our knowledge of the physiology of the gallbladder in addition to being an invaluable aid to the clinician. Interval studies of the gallbladder filled with an opaque material, following the intake of certain foods, demonstrated its contractile properties. Hormonal activation is evidently responsible for these contractions. Egg yolk and fats are the greatest activators of this contractile activity. The cells of the gallbladder mucosa have absorptive and secreting functions evidenced by concentrating the bile that is received by it. Therefore, we may conclude that the functions of the normal gallbladder are to receive, store and concentrate bile and to deliver it by way of the cystic duct on physiologic demand. The functions of the bile are to saponify fats and break them up into fatty acids and glycerin, stimulate intestinal peristalsis and to act as nature's intestinal antiseptic.

These physiologic principles are utilized in cholecystography so that functional disturbances of the gallbladder are found in many cases where gallstones are not visualized.

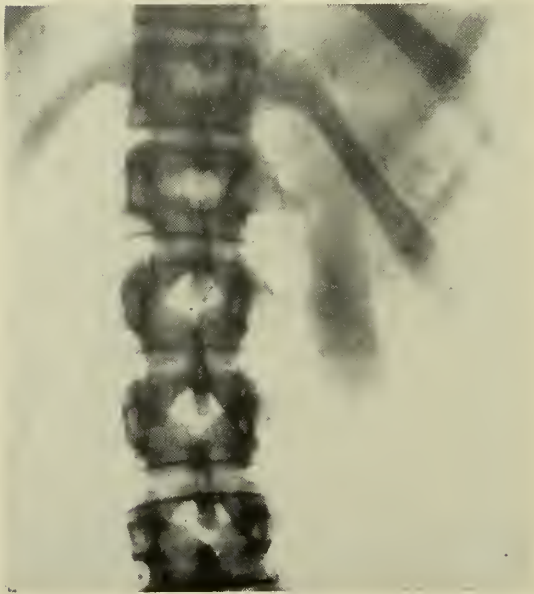
Tetraiodophenolphthalein Sodium is on the market under various trade names and most of the preparations are satisfactory for cholecystography. The hermetically sealed emulsion or powder forms containing



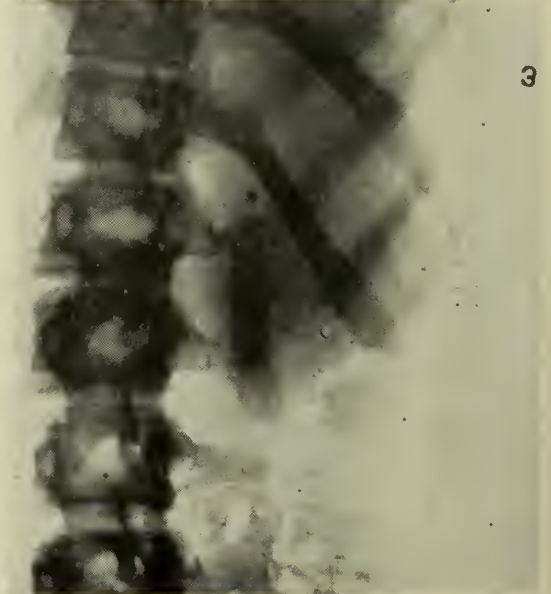
1 (a)
Dye well concentrated in the gallbladder.



1 (b)
Gallbladder completely empty 3 hours following the fat meal.
Normal gallbladder function.



2 (a)
Gallbladder well filled with dye.



2 (b)
Retention of the dye following the meal of fats indicating
impaired gallbladder function.

the opaque material and the acidifying agent are more dependable than that put up in capsule form.

There have been advocates of a double dose method of giving the opaque material but there seems to be no special advantages of this plan. The single dose method is

more simple and has been found entirely satisfactory. The quantity of the opaque material should be from 3.5 to 5 Gm., depending on the size of the patient.

A satisfactory plan is to have a type-written or printed sheet of instructions to give the patient with the dye. These instructions are as follows:



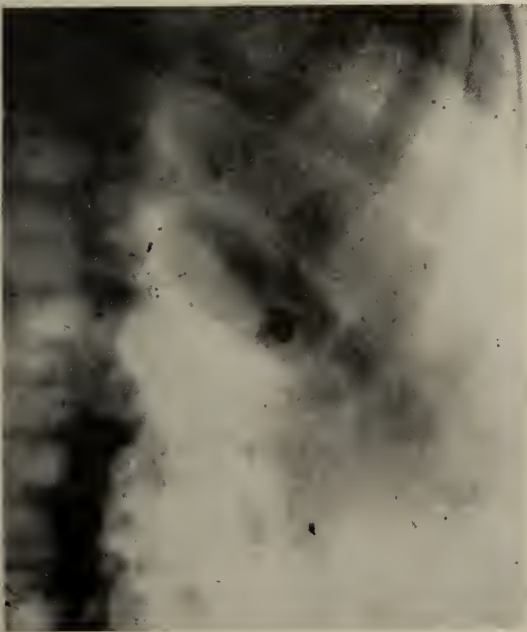
3 (a)

Dye well concentrated in gallbladder containing gallstones.



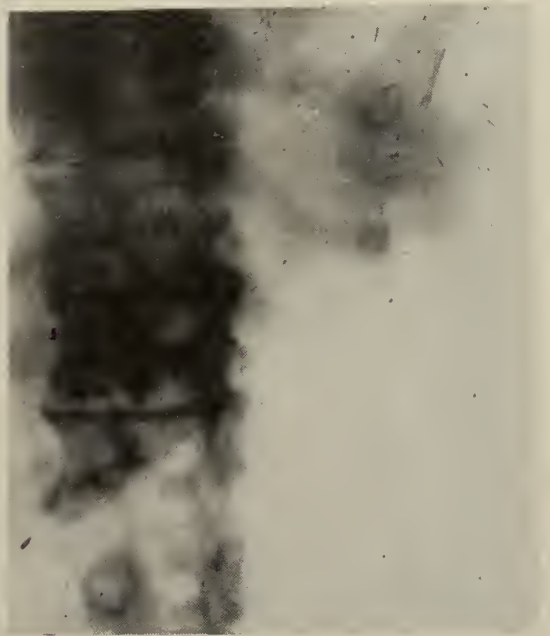
3 (b)

Retention of the dye in gallbladder containing stones.



4 (a)

Concentration of the dye in gallbladder containing stones.



4 (b)

No retention of dye in a gallbladder containing stones.

Instructions for Cholecystographic Study

If you are constipated, take a mild laxative such as milk of magnesia at least 15 hours before taking gallbladder dye.

1. Have a light supper at 6 P.M. No meats, cream, butter, eggs or milk.

Suggestions for Supper: Eat liberally of dry toast, stewed or canned fruits, fruit juices and potatoes.

2. At 7:30 o'clock dissolve the Sodium Tetraiodophenol-

phthalein in three fluid ounces of water (about half tumbler) and stir well. Drink the entire contents of the glass. Additional water may be taken if desired.

3. Retire soon after taking the dye.
4. *Do not eat or drink anything*, and keep away from smell of food until after radiographs have been taken the next morning.
5. Report to the office for radiographs at 9:30 A.M. We like to make the first radiographs 12-14 hours after administration of the dye.



5
Cholangiogram following cholecystectomy showing filling defect in the common duct due to stone.

The normally functioning gallbladder should, at the end of 12-14 hours following the oral administration of the dye, show a sufficient concentration of the opaque material to study the outline of the gallbladder, so that filling defects may be detected. Some of the more frequent filling defects are displacement in type due to non-opaque stones, tumors in the gallbladder and adhesive bands.

Three hours after the meal of fats, the normally functioning gallbladder should empty its entire contents into the intestinal tract. If the gallbladder concentrates the opaque material well and empties at the end of the 3-hour period, a normal function is indicated even in the presence of gallstones. Poor concentration of the dye is suggestive of gallbladder disease and no concentration is suggestive of obstruction of the cystic duct.

Non-surgical drainage of the gallbladder and microscopic study of the drainage contents for bacteria, pus and crystals are often valuable aids, especially in well marked clinical cases of cholecystitis that are negative to cholecystography. While crystals may

be found in cases where there are no stones these are potential cases of gallstones. Occasionally gallbladders fill well with the opaque material and show no retention after the meal of fats but show the presence of gallstones. This accounts for the fact that there are few or no clinical symptoms in some patients with gallstones.

Therefore, from the standpoint of roentgen examination we are more concerned about abnormal function of the gallbladder than we are about the presence of gallstones, since some of the more serious diseases of the gallbladder are due to virulent bacterial infection, especially organisms of the streptococcic group. Gallbladder studies should be done routinely on all patients with digestive symptoms after the age of forty, because these bacterial infections, when neglected, will invade other structures of the biliary tract.

Occasionally jaundice or other obstructive symptoms develop following cholecystectomy indicating the necessity of injecting the biliary tract with an opaque material. In such cases lipiodol is injected through the drainage tube in the cystic duct. Stones may form in any part of the biliary tract and in such cases it is important to eliminate the hepatic duct as a source of obstruction. In rare instances non-opaque stones may be found in the common duct without producing jaundice but they will show displacement filling defects when the biliary tract is injected with an opaque material.

Summary

1. A brief history of the roentgenologic study of the gallbladder has been given.
2. A simple plan of cholecystography has been outlined.
3. The importance of x-ray studies to determine the function of the gallbladder in all patients with clinical symptoms of gallbladder disease has been stressed.
4. Visualizing the entire biliary tract is extremely important in some cases.

DISCUSSION ON PAPERS OF DOCTORS LAKE, PENDERGRASS, CLARK, RAYLE AND LANDHAM

Dr. Robert Drane (Savannah): Diverticula of the esophagus should be mentioned. Whether pulsion or traction they are usually of smooth outline, and when filled

with barium, overflow from the top. These characteristics should differentiate them from carcinoma. Food contents may render the outline irregular and cause confusion. Varices are difficult to demonstrate. Split second exposure in making films is necessary to prevent blurring from transmitted heart impulses.

Carcinoma of the fundus may be seen projecting downward into the air bubble (Kirklin) or in supine Bucky films. The pliable smooth outline is destroyed.

Gross hemorrhage is always an alarming symptom, and in my experience, its source frequently never determined, but laid to varices. One should postpone the examination of these patients until they are able to safely stand erect, and cooperate in the examination.

One can frequently differentiate a malignant gastric ulcer from a benign one—the meniscus sign of Carmen. If we analyze the numerous ulcer treatments, the one thing in common to all is bed rest. Louis Gregory Cole said this is the one important thing. It improves the blood supply. If an acute ulcer has not materially healed in three weeks it is probably malignant and should be treated surgically.

Only the unusual appendix case warrants an x-ray study. It is important to eliminate certain urinary conditions (stricture of the ureter or stone).

Dr. Pendergrass covered duodenal ulcer very well. I should have known about hookworm infestation causing reverse peristalsis in the duodenum. I did not.

Colon studies are difficult and a repeat examination often necessary. In the second examination one does not completely fill the bowel, but only reaches the suspected area. Small lesions are often overlooked. They are best seen in the after evacuation film or double contrast film (mucosal pattern). Those in the lower sigmoid are the most difficult to demonstrate, on account of the superimposed coils, and the difficulty of palpation. Fortunately many of these are within reach of the proctoscope. Close cooperation with those specialists will prevent some embarrassing mistakes.

Gallbladder studies have been disappointing. We must not read too much disease in those cases showing some impairment in concentration; repeat all questionable cases. Sometimes stones which do not show in the usual prone position are seen in the erect position as "a line of soldiers" floating across the dye-filled gallbladder.

I enjoyed the symposium. This work is not as easy as the discussants have made it seem. We are now looking for early and small lesions.

Dr. L. P. Holmes (Augusta): I should like to compliment the essayists on the splendid presentations on the roentgenologic problems of the gastro-intestinal tract.

Obviously, from the time allotted me time will not permit even a full discussion of any one of these fine papers, so with apologies I will present a short case report pertaining to the colon and show a few slides illustrating this case.

Mrs. C. R. came into the University Hospital, Augusta, March 30, 1942, stating that six days prior she suddenly became "sick on the stomach," followed by daily attacks of vomiting, with pain over abdomen, worse on right side. Her age was 21 and she had two babies aged 21 months and 3 months.

Examination of her abdomen showed the lower right quadrant slightly fuller than the left. No muscular rigidity was present, but the abdomen was quite tender to palpation. Spleen and liver not palpable. Palpation of lower right quadrant revealed a movable mass approximately 3 x 8 cm. in size. The mass was very tender and corresponded to the area of pain. It was firm, but not very hard, and lay just medial to the anterior superior spine of the ileum. Lungs and pelvis negative. Blood Wassermann negative; R.B.C. normal; W.B.C. 11,600. Urine normal except for sugar two plus.

It was problematic as to what the tender mass was, (a ptosed kidney was suspected) and a barium enema was done. Upon insertion of the tube and preliminary survey under the screen a large impacted fecalith was discovered, the size of a large orange, lying in the rectal ampulla which caused the enema tube to bend upon itself. There were three fecaliths in the ascending colon and cecum, the lower one in the cecum being the size of an orange, and the upper ones smaller. The enema showed displacement defects.

After several days on retention oil enemas the masses all disappeared and the patient, who was of a psycho-neurotic makeup, was discharged as well on the fifteenth day.

I mention this case to illustrate the value of x-ray diagnosis in colon complaints.

Dr. M. C. Pruitt (Atlanta): I have enjoyed the symposium on *The Roentgenologic Problems of the Gastro-Intestinal Tract*. I do not feel that it would be quite complete without a little more emphasis on the comparative evaluation of roentgenologic and proctosigmoidoscopic examinations as early diagnostic procedures in the terminal bowel.

Proctosigmoidoscopy is the most certain and often the only diagnostic criterion of early lesions of the anus, rectum and lower pelvic colon, and in many cases should be done before the giving of a barium enema which might precipitate a partial into a complete obstruction. Pain caused by acute inflammatory lesions such as fissure, cryptitis, proctitis and ulceration of the anus and lower rectum may cause reverse peristalsis and in this way interfere with a satisfactory giving of or filling by barium enema.

No one has a copyright on digital examination. It often reveals a great deal that cannot be determined in many cases by x-ray examination of the anus and rectum as high up as the brim of the pelvis. There will be an occasional robust, heavy, muscular individual who has a long anal canal, that will be more difficult to examine. In these cases, however, you will be able to determine if the enema tube can be passed with little discomfort, or injury to the patient.

Early malignant growths in the rectum frequently are missed by x-ray examination, and that is the only time we have any hope of getting results from treatment. If you expect to cure carcinoma of the rectum you must get the case early; and a small early lesion is often not shown by x-ray examination. Visual examination as far up as can be seen with a sigmoidoscope will show and determine more than any x-ray finding in this region. I think x-ray findings above this point are of much more value than within the rectum. After you get within the

region of the colon, you can change the position of the patient and by manipulation with the hand on the abdomen move the distended colon from side-to-side or change its position so that you can get a distinct shadow outline of the lumen of the bowel. This you cannot always do in the rectum, because the rectum up to the pelvis is in a fixed position. Operation on one of these patients with the colon filled with barium is an unfortunate handicap.

Air inflation of the colon "as a prank" is not an uncommon thing around coal mines. Rupture of the bowel has happened a good many times. In some cases the patient died. Another precaution in acute cases of ulcerative colitis, where the mucous membrane is ragged or has a worm-eaten appearance, the colon could easily be ruptured in passing an enema tube, or inflation of the bowel with air with a little bulb could result in perforation of the colon. So be careful and not use too much pressure. Also it is easy to punch a hole through the sloughing indurated inflamed pelvic colon. If you pass the tube two or three inches, that is all that is necessary. The fluid will pass much easier than the tube.

I have enjoyed this symposium very much because I have to depend a great deal on the radiologists to keep me from getting in trouble and to help me rule out something that is higher up than I can see from below.

Dr. Calvin B. Stewart (Atlanta): It seems really very remarkable that the x-ray men are able to uncover the many obscure, deep seated lesions which they do. Perhaps the laity are not far wrong when they think that x-ray films will show anything. I am deeply interested in the cancer side of this discussion, and I am not quite satisfied with the results we get from x-ray examinations of the stomach. The reason is that early cancer produces no symptoms and no demonstrable change on the x-ray films. Hence a case with symptoms or x-ray evidence is advanced.

Perhaps we need to turn to the laboratory or the medical men to help us in making the diagnosis of early cancer of the stomach. We need an easy, inexpensive test that could be incorporated in the annual examination of all people. In that way early stomach cancer may be expected to be found, and if found early, then we can hope for cures.

Having nothing better now to fill this need I have employed the gastric analysis. It has been found to be simple, inexpensive and frequently helpful. But one must realize its pitfalls, and when doubt remains the use of the x-ray is employed.

As we continue down the intestinal tract the diagnosis by x-ray seems to be earlier. Perhaps this may be explained by the fact that the tube is smaller and obstruction will occur earlier, thus bringing the patient for x-ray examination before it is too hopeless. In doing these studies of the alimentary canal, the fluoroscope is a most useful procedure. Here I should like to re-emphasize Dr. Clark's warning. You must use adequate protection. I have found it a rather tedious and often disappointing task to replace the damaged skin or treat the skin cancer which may arise, when this protection has been disregarded by the doctor.

One other point I'd like to make is that these x-ray

men spend a good bit of time with the patients. Perhaps that is one reason they learn a lot. I think that if we as clinicians spent as much time in proportion and examined as thoroughly, a lot of diseases we are passing up would be found. We certainly are not justified in letting a patient with an intestinal complaint get out without a rectal examination. Finally, allow me to repeat, *do a rectal examination.*

Dr. Wm. F. Lake (Atlanta): There are two points I want to stress. First, to you, as clinicians, don't hurry or limit us. I had a doctor call me and say, "I have a patient in my office. The patient is just going to the hospital. Can you get a G-I done today?" I said, "Has the patient had breakfast?" He said, "Yes, a little breakfast two or three hours ago." That isn't the way to do a G-I study. Food in the stomach is often misleading. The gastro-intestinal study should be started with the stomach empty.

Secondly, don't think we are inefficient if we ask for re-examination. Sometimes we can't determine just what we have found without re-examination.

Dr. James J. Clark (Atlanta): There are a good many diseases that couldn't be taken up in the time allotted today.

Dr. Stewart asked about proper preparation of the patient. I think that depends a great deal on what you think is clinically wrong. It might be all right to give one patient castor oil and still oil would be dangerous for the next one. We have to depend on laxatives, cathartics and enemas in the preparation of patients.

From Dr. Pruitt's remarks, I think he is confusing barium enema and barium meal. Barium enema is a liquid preparation. I have never seen any retained to cause embarrassment. A barium meal coming down the stomach becomes dry in the descending colon and if any colon obstruction is suspected, don't use barium from above because it may bring on acute obstruction.

About the enema tube, the tube described is only about three inches long. The nozzle is just long enough to pass the internal sphincter. It is a useful instrument to have in the office. We use this type of nozzle so the patient will not spill the enema all over the table and floor. We all know, who do radiology, that the long rectal tubes belong in the waste basket. They do not accomplish anything and shouldn't be used in any hospital in the country. I know a tube inserted just inside the sphincter will do all you want to do. It isn't necessary to pass fifteen inches of tube up the colon.

Dr. Stewart brought out the fact that roentgenologists spend time with the patients. If you spend twenty minutes in the dark waiting for accommodation, that patient will tell you many things they forget to tell you in your office. We often get very valuable clues from information they give us in the dark while getting accommodation. The reason so many lesions in the sigmoid are overlooked is because of poor visual accommodation, our eyes are not prepared. Take plenty of time to get accommodation and give enemas slowly. Have the patient properly prepared and you will find most of the lesions in the colon.

ONE HUNDRED AND ONE YEARS OF ANESTHESIA

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It appears to me that it would be inappropriate for one from the frozen North — well frozen this year I may say — to attempt to recreate for you, of Georgia, that dramatic event of 101 years ago when, on March 30, 1842,¹ Dr. Crawford W. Long administered ether in Jefferson, Georgia, to produce surgical anesthesia. You can reconstruct, better than I can, the setting in a small community of a century ago, and the sound of the courteous, musical Georgia speech as Dr. Long, unimpressed with his own importance, quietly set about making surgical history. Nothing I could say would add, in your eyes, to the significance of what Dr. Long accomplished or, in the eyes of the world, to the well-merited fame of the man. Will you, then, accompany me in a brief survey of what followed Dr. Long's contribution and what may well be expected in anesthesiology of the future?

If progress in the development of the specialty of anesthesiology had been at the same rate and of the same excellence as that which took place in the first five years after 1842, this branch of the practice of medicine would not be considered new today nor would there be such a marked scarcity of anesthetists available for use in war as well as in civil practice.

On October 16, 1846, William T. G. Morton demonstrated the use of ether in Boston. Nitrous oxide was introduced by Horace Wells in 1844, in Hartford, and Sir James Simpson introduced chloroform in London in 1847. Thus, in the space of a very few years, three important anesthetic agents became available for producing surgical and obstetrical anesthesia. The use of these agents was almost world wide immediately and in 1847, John Snow of London, the first physician to specialize in anesthesiology, published an excellent book on anesthetic

agents. Many were the problems that faced the person who wished to use these then new anesthetic preparations.

Ether

One of the problems was, of course, to obtain a good quality of ether and a sufficient supply. Edward H. Squibb, in 1853, developed a revolutionary method for the manufacture of ether by the continuous passage of steam through lead coils. The next problem was to determine by what routes the agent might be administered. Pirogoff, in Russia in 1847, described the administration of ether by rectum. However, results were unsatisfactory because the agent was instilled undiluted. It was not until 1885 that Molière, of France, again tried the rectal method but once more it was discarded. The method was not used with success until 1913, when James T. Gwathmey, of the United States, was able successfully to anesthetize a patient by instilling into the rectum a mixture of ether and oil. No improvement in administration by this route has yet been developed, although Gwathmey himself feels that some form of gum rubber, such as latex, might be used as a vehicle for the ether and thus reduce the volume of material that the rectum must hold at one time for successful use of this method.

Another route for administering ether was tried by Ludwig Burkhardt of Germany in 1909 when it was injected into a vein. In 1913, William F. Honan and J. Wyllis Hassler reported on the use of ether administered intravenously in 5 to 7.5 per cent solution. This was useful but not very successful because of the large amount of vehicle needed for introduction of the ether. Further progress has not yet been made in this method of administering ether and probably will not be made until some vehicle can be obtained which will reduce the total bulk of solution to be administered, especially during a long operation.

The standard method for administering ether remains that of inhalation of the vapor into the lungs. First, fumes from a saturated sponge or cloth were inhaled. Then containers were made from which

¹Read before the faculty and student body of the University of Georgia, Athens, March 30, 1943.

the patient could draw air over the surface of the ether by putting his lips over a tube coming from the device. Eventually masks covered with gauze were made to put over the face and ether was dropped on the masks intermittently. This proved to be the most satisfactory way of administering ether. Eventually an ether bottle was put on a gas machine and the closed method of combining ether vapor with gases was used. These two methods are extensively employed today, for ether remains the safest all-round preparation for inhalation anesthesia.

Chloroform

Chloroform is more poisonous than ether and is especially harmful to the heart and liver. Its use for producing surgical anesthesia is frowned on in many parts of the world, especially in this country. However, at one time chloroform was widely used as an anesthetic agent in obstetrics and it still is used for that purpose in many places in the country, although not often in institutional practice. It is easier to use in hot climates than ether and so, in the global war of today, chloroform is being used again in many places for military surgery. It may be that some method of administering chloroform can be devised which will restore it to its former wide use. Because of its noninflammable nature this is most desirable. In 1858, John Snow's book on "Chloroform and other anesthetics" was published posthumously and contributed greatly to the subsequent acceptance and intelligent use of this agent in England. In 1862, Clover published an account of his new chloroform inhaler for regulation of the percentile mixture of chloroform and air. This further widened the use of chloroform.

Nitrous Oxide

In 1867, the S. S. White Dental Manufacturing Company, of the United States, introduced an inhaler to cover the mouth and nose. The nitrous oxide was obtained from a large bagful of the gas. However, the successful use of nitrous oxide came about through E. W. Andrews of Chicago, who introduced the use of oxygen with nitrous oxide. In 1871 the Johnston broth-

ers compressed nitrous oxide into wrought iron cylinders. This packaged the gas. In 1876, Clover of England, introduced the use of nitrous oxide for inducing anesthesia and of ether for maintaining anesthesia. In 1880, Klikovitch of Russia, began the use of nitrous oxide in obstetrics.

An early apparatus for mixing chloroform vapor and nitrous oxide was introduced by Hurd, of the United States, in 1899. During the next quarter century many anesthesia machines were introduced. In 1912, Boothby and Cotton developed a machine and in the same year one was developed by Gwathmey and Woolsey. In subsequent years machines were manufactured and improved until at present they are vastly different from what they used to be.

Nitrous oxide, because it was non-inflammable, proved very useful, especially to dentists. The addition of oxygen and ether to nitrous oxide made it even more applicable. A mixture of nitrous oxide and oxygen is often used to great advantage with other anesthetic agents; it has been widely adopted and, in general, it is the most useful anesthetic gas. I think it probably will hold this position for a long time.

Ethylene

Ethylene was the anesthetic gas next introduced. It had been noted by Crocker and Knight, in 1908, that ethylene put flowers to sleep. Knight told Luckhardt about this gas and, in 1918, Luckhardt and Thompson discovered its anesthetic properties. In 1923, Luckhardt and Carter introduced ethylene for the production of surgical anesthesia. In the same year Brown, of Canada, reported independently on ethylene as an agent for general anesthesia. Use of this agent became extensive immediately and lasted until about 1935 or 1936; the agent is still used in many places. The inflammable and explosive property of ethylene make its employment somewhat hazardous although in general it is not considered to be more explosive than the mixture of nitrous oxide, oxygen and ether.

Cyclopropane

The anesthetic gas, cyclopropane, was next introduced by Waters, Neff and Rovenstein, in 1933, and it has largely replaced ethylene. Even though cyclopropane is inflammable and explosive it is more potent than ethylene and therefore easier to administer; patient, surgeon and anesthetist are better satisfied. Successful clinical use of cyclopropane was dependent on another advance in general anesthesia, which was the use of soda lime as an absorbent of carbon dioxide. Soda lime was first used in anesthesia by Jackson, of the United States, in 1915 in the laboratory and was perfected and used clinically by Waters in 1923. The device effected great economy because, since nitrous oxide, ethylene, cyclopropane and ether do not undergo chemical change in the body, they were just as good after being exhaled as they were when inhaled. To use them over and over again it was necessary to have only a tight-fitting mask and a leakproof, closed apparatus in which the patient might breathe. From this atmosphere carbon dioxide could be withdrawn and small amounts of oxygen added to keep the patient alive. The patient converted the oxygen into carbon dioxide, the soda lime removed the carbon dioxide and, theoretically, very small amounts of materials would be needed indefinitely. Cyclopropane was at first expensive and this economical way of administering it made its clinical use possible on a wide scale. The necessity for economy has compelled manufacturers to supply all makes of gas machines with soda lime absorbers. This has greatly influenced the style of the gas anesthesia machine.

Carbon Dioxide

The mixture of carbon dioxide and oxygen was advocated in 1908 by Yandell Henderson for overcoming asphyxia and for other purposes, but was not extensively used until 1923, when Foregger constructed the Seattle model apparatus for me. Other manufacturers remodeled their machines from time to time, adapting them to present day purposes. Because of competition, each manufacturer used special parts. The need for standardization of machine parts, re-

gardless of make of machine, is evident today because of the war; for example, cylinders of nitrous oxide manufactured in England have large valves and those made in the United States have small valves. This means that a cylinder shipped from one country will not fit the machine made in the other country. In the future it will be necessary to overcome these difficulties and perhaps standardization may become compulsory.

It should be possible to make a device which will immediately analyze mixtures of anesthetic agents and indicate the percentage of each in the mixture. Such a device may facilitate the use of the anesthesia machine and help greatly in teaching anesthetists how to use it, especially when either forms part of the mixture.

Additional Medication

Various drugs, especially morphine, were tried in conjunction with the use of anesthetic agents, in the hope that less of the anesthetic preparation would be necessary if additional drugs were used. Greene, in 1868, advocated use of such drugs and, throughout the years, some of these drugs have been employed. At present the drugs most commonly used are morphine, atropine, the barbiturates and scopolamine. Sometimes one drug is used and sometimes, two or three. While these drugs have not always seemed to be of value when used with inhalation anesthesia, they are of great value in combination with local and intravenous anesthesia.

Endotracheal Anesthesia

One of the great contributions to the development of satisfactory anesthesia by inhalation has been use of the intratracheal tube. As long ago as 1871, Friedrich Trendelenburg used this method. In 1878, Macewen, of Scotland, used a tube passed through the mouth into the windpipe but little attention was paid to employment of this method. In 1909, Meltzer and Auer, of the United States, used intratracheal insufflation in anesthetizing animals and, in the same year, Elsberg used it in anesthetizing a human being. What these men had done received considerable publicity but it was not until 1920 that Magill, of Eng-

land, really developed endotracheal anesthesia as we know it today, using large, soft rubber tubes through which the patient can breathe readily and through which the anesthetist can ventilate the patient's lungs with whatever he wishes to use. Others have made special tubes and they have all been good; namely, Waters, Guedel, Flagg and Tovell.

An intrapharyngeal tube has been used a great deal. The tube is inserted, usually through the nose, to a point just above the top of the windpipe but the tube does not enter the windpipe. These tubes have made it possible for the anesthetist to remove himself and his devices to a sufficient distance from the field of operation so that the surgeon has all the room he needs to perform the operation undisturbed and the field of operation is uncontaminated by unsterile devices. This is especially important in operations on the head and face.

Intravenous Anesthesia

Intravenous anesthesia was begun in France, in 1872, by Orè, who injected chloral hydrate intravenously. As time went on other drugs were tried but the present wide interest in of intravenous anesthesia was revived in 1929 by Zerkas, of the United States, who used sodium amytal. Another step was made in 1931 when I reported on pentobarbital sodium (nembutal) for intravenous anesthesia. In 1932, Weese and Scharpf introduced evipan, which was the best agent used intravenously up to that time because its effect was very short; however, in 1934, I reported on the intermittent method of administering pentothal sodium and it has been the agent of choice since that time. It is brief in action and has proved to be useful in both military and civilian practice.

Local Anesthesia

Local anesthesia began in Bohemia in 1884 when Carl Koller, now living in New York, used cocaine in the eye to produce surgical anesthesia. In 1885, Halsted of the United States, introduced nerve blocking with cocaine and in the same year Corning, also of the United States, produced spinal anesthesia with cocaine. Development of lumbar puncture in Germany by Quincke, in 1894, was followed by the in-

troduction of cocaine directly into the spinal fluid by Corning. In 1899, Tuffier of Paris, used spinal anesthesia and, in the same year, Matas of New Orleans was the first in the United States to use it for a surgical operation. Since that time various local anesthetic agents have been synthesized which were more satisfactory and safer than cocaine. The best of these is procaine, often called "novocaine." The duration of spinal anesthesia with procaine is not always sufficiently long but, in 1940, Lemmon of Philadelphia, introduced a method called "continuous spinal anesthesia" in which the needle is left in place and, by means of a rubber tube, solution is injected into the spinal fluid and anesthesia is maintained for the desired period.

The use of local anesthesia has been a great boon to both dentistry and medical practice. Technics have been developed for anesthetizing nerves in all parts of the body. These procedures have been used for diagnosis and occasionally for the treatment of conditions usually associated with pain.

Anesthesiology

Thus the anesthetist has found his field gradually extending into almost all parts of the practice of medicine. He has been called on to assist both internists and surgeons with many of their problems, such as resuscitation, intravenous medication and management of patients who have become uncontrollable through mental or physical difficulties.

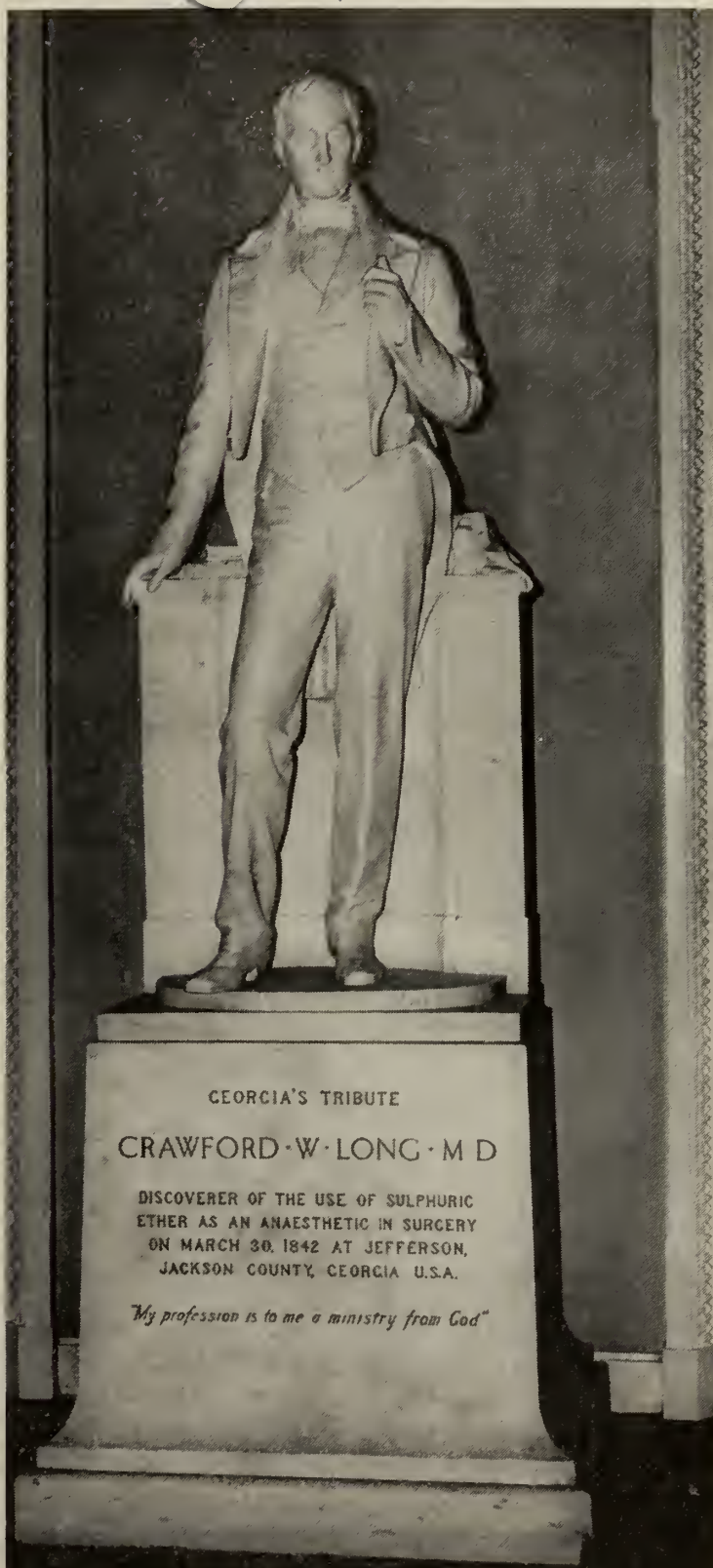
The anesthetist, in his daily experience, has found it necessary to be able to deal with shock. Therefore, he has learned to administer blood, blood substitutes and stimulants. He has had to understand the administration of oxygen with tents and masks and the use of lighted instruments by means of which suction tubes can be so placed as to clear the air passages of foreign bodies and accumulated material. Foreign material becomes lodged in the air passages from time to time in the course of operation under general anesthesia and in connection with certain accidents in factories and other places.

As the field now designated as anesthesiology has developed over this period of 101

CAT.

*Photograph of the Statue of
Doctor Crawford Williamson Long
at Jefferson, Georgia
in Statuary Hall, Washington, D. C.
Massey Rhind, Sculptor*

*Dedicated March 1926
By Crawford W. Long
Memorial Association
Dr. Frank K. Boland, President
Dr. Joseph Jacobs, Vice-President
Dr. W. J. Blalock, Treasurer
(All of Atlanta)*



years, more and more physicians have limited their practice to this specialty. As a result societies have been formed, magazines have been established and published and many books have been written, all relating to this special field.

The first society of anesthetists was founded in London in 1893. Also societies either exist, or did exist, in Germany, Italy, France, the United States, Canada and several other countries. This audience may care to know that the first university to grant an advanced degree in anesthesiology was the Graduate School of the University of Minnesota. It was not until 1937 that the American Board of Anesthesiology was formed, which certifies physicians considered to be qualified specialists in the United States and Canada and, in June of 1941, the Section on Anesthesiology of the American Medical Association held its first meeting.

At present the military services are making a real effort to see that they have available men who are able to administer anesthetic agents satisfactorily. There is an equal need in civil life for just such individuals. It is to be predicted that there is a splendid prospect for those individuals who enter this field of medicine. Frequently young people feel that the practice of medicine has been so nearly perfected that there is little opportunity for them. However, the contrary is the case; that is, medicine is making rapid advances and has done so for many years; this is typified by the special field of anesthesiology which, after being founded in Georgia in 1842, is now starting on its second century.

REFERENCES

1. Lundy, J. S.: *Clinical anesthesia*. Philadelphia, W. B. Saunders Company, 1942, pp. 708-716.

PNEUMOCOCCIC MENINGITIS

The mortality rate in pneumococcic meningitis (inflammation of the three membranes enveloping the brain and spinal cord, caused by the pneumococcus) is not so high as some authors have suggested, Horace L. Hodes, M.D.; Margaret H. D. Smith, M.D., and Howard J. Ickes, M.D., Baltimore, declare in *The Journal of the American Medical Association* for April 24. The sulfonamides bring about an encouraging proportion of cures, except in patients under 2 years of age, they say. Before the introduction of sulfonamide treatment the mortality rate was nearly 99 per cent.

RECOMMENDATIONS FOR A VENEREAL DISEASE CONTROL PROGRAM IN INDUSTRY

REPORT OF THE ADVISORY COMMITTEE ON THE CONTROL OF VENEREAL DISEASES

OTIS L. ANDERSON, M.D., *Chairman*
Bethesda, Md.
Assistant Chief Surgeon, Division of Venereal Diseases

In order to assemble current authoritative information and to formulate basic principles applicable to a program of venereal disease control in industry, the Surgeon General has appointed an Advisory Committee to the United States Public Health Service. This committee has outlined the objectives of such a program as:

A. Medical and Public Health:

1. To find and refer for proper medical management all cases of venereal diseases among workers in industry.
2. To establish equitable policies for the employment of applicants and continuation of services of employees who have venereal diseases.
3. To coordinate the community and industrial venereal disease control programs.

B. Employee:

1. To improve the physical condition of employees.
2. To reduce the number of workdays lost through illness or injury.
3. To provide job placement.
4. To prolong and increase the earning power of employees.

C. Employer:

1. To reduce compensation costs.
2. To lessen work interruptions and labor turnover.
3. To enhance production by increasing the efficiency of workers.
4. To minimize personnel problems.

In order to assure agreement on all phases of fundamental policy, the committee recommends that certain agencies be consulted in carrying out this program: the State Labor Department, industrial commission or similar department of State government; the appropriate committee of the State medical society; the association representing employers; the labor organizations; appropriate voluntary health and welfare associations.

Responsibility for the administration of the program should be shared by the industrial hygiene and venereal disease divisions

of the State health department. The program should not be inaugurated without a complete educational program. The employee should be convinced that adequate treatment protects both his health and his ability to earn a living, and the employer that not all cases of venereal disease are infectious, through an educational program before venereal disease control measures are introduced.

In order that the control program may be effective, pre-employment examinations should be mandatory for all workers. Laboratory tests for syphilis and gonorrhea should be made a part of the periodic, re-employment or "return from illness" physical examinations which are the policy of the industry. The interval between examinations should under no circumstances be more than three years.

It is of utmost importance that the results of the medical examination be considered confidential between the worker and the medical staff. Information should be furnished to others only with the consent of the individual concerned or, failing this, on legal advice. The medical staff should make proper recommendations to the management as to the physical fitness of the employee for work. When the usual clinical record is kept in an open file, venereal disease forms should be filed in the medical department for the use of the medical staff only.

There is no reason for denying employment to an applicant or for discharging an employee because an examination has revealed evidence of syphilis or gonorrhea, provided;

1. That the employee agrees to place himself under competent medical management;
2. That, if the disease is in the infectious stage, employment should be delayed or interrupted until such time as a noninfectious state is established through treatment and open lesions are healed;
3. Then when syphilis exists in a latent stage, employment should not be delayed nor interrupted;
4. That employment may be deferred or denied when the individual is an industrial hazard;
5. That occupational readjustments of employees be made of individuals developing disabling manifestations;
6. That workers with syphilis in any of its stages be excluded from areas where there is exposure to chemicals

which may produce toxic reactions, and those having cardiovascular syphilis or neurosyphilis should not be exposed to physiologic stresses;

7. That workers with gonorrhea should be allowed to work only under special medical observation during the administration of sulfonamide drugs.

The applicant or the employee whose examination reveals evidence of a venereal disease should be called to the industrial physician's office for a conference. He should be instructed as to the nature of the disease which he has in order that he may cooperate intelligently with the requirements of the program. He should be referred to a reputable source for medical attention and be furnished with a letter directed to his physician stating the results of the examination and what is expected of the employee as to regularity of treatment if he is to be employed. The industrial physician should receive a record of treatment at about monthly intervals. The names of individuals who have neglected or refused treatment should be turned over to the health department for appropriate action in bringing them back to treatment.

The plant physician making a tentative diagnosis of communicable syphilis or gonorrhea should without delay acquaint the appropriate health authority with the facts.

POINTS TO THE ENCOURAGING OUTLOOK IN FIELD OF VIRUS RESEARCH

"The opportunities for research in the field of the viruses grow daily more numerous; the results promise vast benefit to mankind," *The Journal of the American Medical Association* for April 24 says in an editorial citing some examples of recent progress in virus research.

The Journal points to a report just issued of the discovery of a new virus which causes a noncancerous tumor-like growth on the membrane lining of the mouth of the domestic rabbit, mainly situated on the under side of the tongue. Among other examples cited by *The Journal* of recent developments in this field are those pertaining to the influenza A virus which appears to be one of the smallest specific agents so far isolated; the obtaining of the virus of epidemic infantile paralysis in purified and concentrated form, and the isolation and identification of a filtrable virus believed to be responsible for the epidemic eye disease of shipyard workers that has been attracting nation-wide attention recently.

"These examples of recent research on viruses," *The Journal* says, "are not intended as an exhaustive review; they are more or less random selections which show that the study of pathogenic [disease causing] filtrable viruses continues to give results of scientific and practical value."

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

MAY, 1943

**COMMISSION REPORTS ITS FINDINGS
ON STUDY OF ATYPICAL
PNEUMONIA***Evidence Indicates It Is One Of Important
Respiratory Diseases Causing Disability
In Armed Forces And Among Civilians*

From a study made of atypical or irregular pneumonia at Camp Claiborne, La., by a commission especially appointed to conduct an investigation of that and other respiratory diseases at the camp, it is reported that "If an appreciable number of minor illnesses are of the same origin, as some evidence now indicates, the infection must be considered to be one of the important diseases of the respiratory tract causing disability not only in the armed forces but in the civilian population."

The report of the commission is made in the current issue of *War Medicine*, published by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council, by John H. Dingle, M.D., Theodore J. Abernethy, M.D., and George F. Badger, M.D., Fort Bragg, N. C.; G. John Buddingh, M.D., Nashville, Tenn.; A. E. Feller, M.D., Alexander D. Langmuir, M.D., and James M. Ruegsegger, M.D., Fort Bragg, and W. Barry Wood, Jr., M.D., St. Louis.

Atypical pneumonia has been reported with increasing frequency during recent years as occurring in sporadic and epidemic outbreaks in various parts of the United States, Hawaii and Panama. It has become an established disease entity and since 1935 has been frequently reported under several names. A year ago the Medical Department of the United States Army adopted the term "primary atypical pneumonia, etiology unknown," so that the disease might be differentiated from other kinds of pneumonia.

"On the basis of the present investiga-

tions," the report says, "it seems most likely that a new agent, probably a virus, is responsible for atypical pneumonia. The studies now in progress are suggestive but do not yet warrant any definite conclusion.

"At the present time no specific control measures are available. No evidence was obtained that predisposing factors, such as chilling, fatigue or previous infections of the upper respiratory tract, were important in the pathogenesis of the disease.

"The experience of the past few years has made it increasingly apparent that atypical pneumonia is a common illness affecting the respiratory tract which is frequently unrecognized. The full extent of its prevalence is probably not realized."

The investigation by the commission was made under the direction of the Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the United States Army, Preventive Medicine Division, Office of the Surgeon General, United States Army. The report points out that "The characteristics of atypical pneumonia [studied at Camp Claiborne] were those of a mild to moderately severe illness of gradual onset in which constitutional symptoms predominated over symptoms referable to the respiratory tract in the early stages. . . . The illness persisted for five to fourteen days and was not influenced by chemotherapy. Complications were extremely rare and the prognosis was excellent.

"A history of exposure to cold and dampness before the onset was encountered in 42 per cent of the cases; in 35 per cent of cases the patients gave a history suggesting a preceding infection of the upper respiratory tract. There was no consistent history of insect bites or of contact with birds or animals. . . .

"The onset of illness was gradual over a period of one to two days in the majority of instances. The constitutional symptoms of fever, headache, malaise and chilliness without rigor were present in more than three-fourths of the cases. Dry and paroxysmal cough was an almost constant complaint early in the course of the disease; it was productive by the time of admission in approximately two-thirds of the cases. . . .

"Coryza occurred in only 28 cases, or 41

per cent, by the time of admission and sore throat in about one-third. . . . In the great majority of cases the patients on admission were mildly or moderately ill, and prostration was rare. . . ."

There was a wide variation in the fever response to the disease, some patients having no fever at any time during the hospital stay but the majority of them had a fever course of at least six days, which was in sharp contrast to the course of patients with regular pneumonia when treated with sulfonamide compounds. Also in contrast to regular pneumonia the pulse and respiratory rates were only slightly elevated in those with atypical pneumonia and labored breathing was rarely encountered.

Great variability was observed in the duration of the acute illness. The shortest illness recorded was two days and the longest forty-five days; in the greatest number of cases the illness lasted seven days. The average stay at the hospital for patients with atypical pneumonia was 31.7 days. Complications were infrequent. Only one death occurred in the 285 cases under investigation.

No specific form of treatment was found effective. Complete rest in bed, a liberal intake of fluids and an easily digestible diet were given during the fever period.

The findings by the commission suggest the possibility that the disease has a long incubation period and there was a limited amount of evidence indicating that under conditions of frequent exposure the disease was transmissible from patient to patient by contact. Unrecognized and inapparent infections probably exist and may constitute the effective source of spread of the disease. Some slight evidence for the presence of an unidentified agent of the cause of the disease has been obtained, the commission reports, but to date this agent has not been positively identified.

In summarizing its findings the commission says that they emphasize the need for early and repeated x-ray examination and for frequent physical examination during the course of the acute illness because only by such methods can the true incidence of atypical pneumonia be determined. The wide occurrence of cases at the camp and

the small proportion of the population affected suggest that susceptibility to the pneumonic form of the disease was low.

In the same issue of *War Medicine* Major Edgar T. Campbell, Medical Corps, United States Army, points out that primary atypical pneumonia is frequently associated with malaria in regions where the latter disease is endemic or prevalent. He says that both diseases, when present, run their independent courses concurrently, with little effect on the eventual recovery of the patient. He also declares that the diagnosis of the disease must be made by x-ray examination.

—American Medical Association News, Chicago, April 2, 1943.

OFFICIAL CALL, A. M. A.

To the Officers, Fellows and Members of the American Medical Association:

The regular annual session of the House of Delegates of the American Medical Association will be held in Chicago, Illinois, beginning Monday, June the seventh, Nineteen hundred and forty-three.

There will be no Scientific Assembly of the Association during the year Nineteen hundred and forty-three.

The President-Elect will be installed as President at a meeting to be held at 8 P.M., Tuesday, June the eighth.

FRED W. RANKIN, *President*.

H. H. SHOULDERS,

Speaker, House of Delegates.

Attest:

OLIN WEST, *Secretary*

Chicago, Illinois, April the fifth

HOUSE OF DELEGATES

The House of Delegates will convene at 10:00 a.m. on Monday, June 7, 1943, in the Red Lacquer Room of the Palmer House. The President-Elect will be installed as President in the Ball Room of the Palmer House. The Palmer House is located on Monroe Street, between State Street and Wabash Avenue.

REPRESENTATION

The apportionment of delegates made at the New York Session of 1940 entitles your State Association to three delegates for 1941-42-43.

"A member of the House of Delegates must have been a member of the American Medical Association and a Fellow of the Scientific Assembly for at least two years next preceding the session of the House of Delegates at which he is to serve.

"Delegates and alternates from constituent associations shall be elected for two years. Constituent associations entitled to more than one representative shall elect them so that one-half, as near as may be, shall be elected each year. Delegates and alternates elected by the sections, or delegates appointed from the United States Army, United States Navy and United States Public Health Service shall hold office for two years."—*Chap. I, Secs. 1 and 2, By-Laws.*

RULES FOR THE GUIDANCE OF THE COMMITTEE ON CREDENTIALS

Adopted by the House of Delegates at Atlantic City, N. J., June 6, 1912

1. Credentials shall be of two parts. The first part shall be sent to the office of the Secretary of the American Medical Association by the secretary of the constituent association, not later than seven days prior to the first day of the first meeting of the House of Delegates, and shall be a list of delegates and alternates for that association. The constituent associations shall designate an alternate for each delegate, who may take the pledge of the delegate when authorized to do so by said delegate in writing. In the absence of such authority, any alternate who has been duly chosen by the constituent association may be seated in place of any delegate who is unable to attend, provided he presents proper official authority from said association. A certificate signed by the president or secretary of the constituent association shall be deemed legal authority (*as amended June 7, 1921*).

2. Each delegate shall be furnished with a credential by the secretary of the association by which he is elected on a prescribed form furnished by the Secretary of the American Medical Association, which shall give the date and term for which he was elected and who was elected to act as alternate for him in case of his inability.

3. A delegate, on presenting himself to the Committee on Credentials, may be seated even though he may not present part 2 of his credential, provided he is properly identified as the delegate who was elected by his association and whose name appears on the Secretary's record.

4. No alternate may be seated unless his credentials meet the same requirements as designated for the delegate and he can show written evidence that he is empowered by his delegate to act for him, except as provided for in Section 1 as amended (*as amended June 7, 1921*).

5. When a constituent state association reports that one of its elected delegates and his elected alternate are both unable to attend a specified annual session of the American Medical Association, the constituted authority of said constituent state association may fill the vacancies caused by the absence of both an elected delegate and his elected alternate, and such a substitute delegate or his substitute alternate who presents proper credentials signed by the president and secretary of said constituent state association shall be eligible to regular membership in the House of Delegates of the American Medical Association in such a specified session (*as adopted, May 12, 1932*).

JOURNAL COMMENTS ON OWI REPORT ON THE SUPPLY OF PHYSICIANS

Commenting on a report released by the Office of War Information concerning the supply of physicians in the United States at this time, *The Journal of the American Medical Association* for April 3 says:

"Significant is the opinion of the governmental agency that the health of the nation as a whole has not been seriously impaired by any shortage of doctors, that the number of communities critically in need of doctors is not great compared with the total number of communities in the country, and that it might have been better if there had been from the first an agency capable of protecting the needs of the civilian population in the recruitment of doctors. Thus far the relocation of physicians has not wholly solved the problems that prevail. The situation is not now out of control, but luxury medicine is out for the duration. Evidence is not available as to the nature of the personnel utilized by the Office of War Information in making this survey or as to the technic used by the surveyors in securing information. Apparently the investigators failed to utilize fully the facts and data of the Procurement and Assignment Service. For example, the figures of percentage attainment of quotas on Dec. 1, 1942, are at variance with those tabulated by the Procurement and Assignment Service from the Adjutant General of the U. S. Army and the Surgeon General of the U. S. Navy. Frequently throughout the release, isolated or remote communities are cited with low physician population ratios and given as evidence of the breakdown of Procurement and Assignment Service. Upon closer inspection it becomes evident that many of these communities did not have more favorable ratios prior to the war. Rather too great emphasis seems to have been placed on a statement from one county medical society in a Southern state which was certainly not typical of the vast majority of medical societies in this country. Moreover, the investigators seem to have been a little naive in accepting such statements as that of the physician who is said to have slept only three hours a night for a considerable period. The report will, of course, come to the attention of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, which is the governmental agency charged with the problem of supplying physicians for the armed forces, industry and the civilian population. As a branch of the War Manpower Commission, with which also is associated the Selective Service System, there seems to be no reason why this agency should not be able to meet needs as they develop, keeping in mind always, however, the fact that the first problem of the nation is the winning of the war and that it is the duty of civilians in wartime to sacrifice largely in maintaining the armed forces at the utmost peak of health and physical fitness."

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

TUBERCULOSIS: PAST, PRESENT AND FUTURE

The following table of deaths and death rates show their trend in Georgia since 1930. It shows there has been a steadily declining death rate during the period under consideration. Whether it will continue to become less in the future will depend on many factors, some of which may be beyond our control.

to the State Health Department. Other previously unknown cases are being found through the large case-finding surveys which the State Health Department is conducting in industrial plants. Many of the cases found in defense plants are from other states and, flocking in to find employment in defense industries, help to swell our number of reported new cases of tuberculosis,

DEATHS AND DEATH RATES

	White		Colored		Total W & C	Rate per 100,000 Population		
	No.	%	No.	%		White	Colored	W & C
1930.....	774	36	1401	64	2175	42.0	130.6	74.6
1931.....	700	32	1465	68	2165	37.7	135.8	73.7
1932.....	665	36	1268	65	1933	35.4	116.9	65.3
1933.....	675	38	1102	62	1777	35.6	101.1	59.6
1934.....	605	34	1167	66	1772	31.7	106.5	58.9
1935.....	649	37	1082	63	1731	33.6	98.2	57.1
1936.....	648	38	1065	62	1713	33.3	96.2	56.1
1937.....	559	36	990	64	1549	28.5	89.0	50.3
1938.....	602	37	1010	63	1612	30.3	90.3	52.0
1939.....	543	35	990	65	1533	27.2	88.1	49.1
1940.....	544	35	989	65	1533	26.7	91.2	49.1
1941.....	501	35	884	65	1385	24.3	81.3	44.0
1942.....	465	35	800	65	1265	22.8	73.7	40.5

CASES OF TUBERCULOSIS REPORTED IN THE STATE

Year	Number of Cases Reported	Rate Per 100,000 Population
1934	3647	121.3
1935	3588	118.4
1936	3317	108.6
1937	3016	98.0
1938	3011	97.1
1939	2996	95.9
1940	2800	89.6
1941	2635	83.8
1942	3067	98.2

The second table, which shows by years the number of cases reported, also indicates a decline until 1942, at which time the number suddenly arose to above the 1937 level. This is by some observers taken to indicate that tuberculosis is on the increase because of changing conditions of living — alteration of diet and nutrition, and crowding — brought about by our nation's great all-out war effort. However, it is necessary to keep in mind the fact that a large part of the increase in cases reported is due to those additional cases found through the x-raying of all persons entering the military services. All cases of tuberculosis found by such means are reported

but do not actually represent an increase in tuberculosis case incidence.

There is no reason to expect, though, that we will not experience, as have all other countries at war, a very material increase in tuberculosis cases and, later on, in deaths. Substandard living, with its under-nutrition, crowded living quarters, overwork, worry and diminished medical care, will certainly be conducive to increase in tuberculosis as well as in other diseases. To avoid losing what we have gained in tuberculosis control every effort should be made to hold what we have against the day after the war when expansion of present facilities may be sought.

Inadequate Institutional Care

The State Tuberculosis Sanatorium has about 630 beds. Only about 550 can be used because of lack of other space for employees. Actually there are less than 1,000 beds in the State, although a minimum of 2,530, or two beds per annual death, are required. There are over 6,000 known cases in the State. Only one-tenth can be cared for at any one time in the State Tuberculosis Sanatorium. All the others must be cared for in the communities of their residence. Much has been done for these many thousands of cases, but not enough.

To control tuberculosis two things are necessary: first, locate all cases; and second, protect everybody from infection. The first can be

brought about by the proper sort of examination of every person. The practicing physician comes into contact with practically everybody. He is the one who can and should bring to light all of the source cases of tuberculosis infection, as well as tuberculosis cases in their early and more easily curable stages. He should suspect everybody who has a chronic cough of having tuberculosis until repeated sputum examinations and other studies prove otherwise. The family physician should keep in mind that it is the person who coughs that is responsible for more than 50 per cent of our general population being infected with tubercle bacilli. He should remember that tuberculosis is a disease of adults rather than of children, and that it is as common in old adults as in young men and women. He should know that the lowest death rate from tuberculosis is among persons 4 to 15 years of age. He needs to know when to depend on sputum examinations, and when on x-ray and history and symptoms. He should learn of the limitations and values of different methods of examination. It is certainly worth the physician's time to become thoroughly familiar with the diagnosis and treatment of tuberculosis, because it is one of the most common infections with which he will have to deal.

Public Health Aids

To aid the practicing physician in case-finding on a large scale and in case follow-up, State and local health departments have made possible mass x-ray clinics. Several counties and tuberculosis associations have x-ray equipment for limited x-ray service. The State Health Department has operated a field x-ray unit for the past thirteen years making about 15,000 x-ray pictures annually in clinics organized by local county health departments. Recently, a 35 mm. fluoro-photographic unit was added for mass survey work in industrial plants, schools and colleges; 8,000 to 10,000 pictures are being made every month with it.

Another Forward Step

In 1942, the State Health Department was fortunate in having it made possible, through the United States Public Health Service and the United States Children's Bureau, to purchase thirty fluoroscopic-radiographic units. These have been placed in as many local county public health offices. It was and still is intended to develop x-ray clinics of various kinds using the personnel of the State Health Department to assist until such time as the local health departments and local physicians could take over. Chest x-ray clinics for tuberculosis case-finding and case follow-up, heart and chest x-ray in venereal disease clinics, x-ray in prenatal cases, and in bone work in nutritional deficiency studies are some of the uses contemplated. The war and the resultant shortage of physicians has caused delay in the full development of such

clinic work. But as rapidly as possible local health department personnel is being taught how to use these machines in a limited way and thus step up tuberculosis x-ray clinic work without being entirely dependent on the State Health Department for such service. After the war is won these counties will at once be in position to develop x-ray public health services which every county and city should have and will ultimately have.

Protection from Infection

This is being brought about in many ways. Ideally, it could be done by placing all communicable cases in institutions until they are no longer dangerous as spreaders of disease. As stated, there are more than 6,000 known cases in the State. Less than 1,000 hospital beds are available for them. Only 600 (those at Alto) are available to the State at large. To make these beds of the greatest possible value, patients admitted are carefully selected for their possibility of becoming non-communicable cases through lung collapse measures. When artificial pneumothorax or pneumoperitoneum are successfully established patients are discharged from continuance of their treatment by the many physicians in the State who have become qualified to perform such service. The State Health Department pays these physicians for such services rendered to patients who are certified by county welfare directors as unable to pay. January 1, 1943, 630 patients were being treated under this program. Such a program permits a much larger turnover in the Sanatorium than we could possibly have without it.

There is a large number of patients for whom no State institutional facilities are available. The care of these must be recognized as the responsibility of the community in which they live. Until the day comes when the State provides the large number of beds (1,000 are needed) required for them, local health departments, welfare departments, tuberculosis associations and other agencies must house them, feed them and teach them how not to infect others. Our declining death rate is an index of how well this is being done. A continued determined effort in spite of the difficulties we are to encounter because of our all-out war effort may hold our tuberculosis rate where it is. It may even reduce it, it is hoped.

H. C. SCHENCK, M.D., *Director*
Division of Tuberculosis Control.

There is a new State Law governing delayed birth certificates. Part of its provisions follow:

Any birth more than six months delinquent will have to be placed on record by the County Ordinary. The total charges for placing a birth on record with the Ordinary are \$4.25. This charge does not fall on the doctor but he should be very careful to see that each of his births are placed on record within the legal time. The State Law with regard to placing a birth on record is ten days and after six months, it is delinquent.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1943-44

President—Frieda Grefe, R.N., Savannah.

First Vice-President—Sister Cornile, Atlanta.

Second Vice-President—Mrs. Mae M. Jones, Milledgeville.

Secretary—Mrs. Esther Watts, Columbus.

Treasurer—Jane Van De Vrede, Atlanta.

Executive Secretary—Durice Dickerson, R.N., Headquarters, 131 Forrest Ave., N. E., Atlanta; Tel. WA. 8911

Chairman, Private Duty Section, G. S. N. A.—Mrs. Mildred Pryse, Atlanta.

President—Georgia League of Nursing Education, Ruth Babin, Atlanta.

President—Georgia State Organization of Public Health Nursing, Vera Mingledorff, Griffin.

Chairman, Private Duty Section, G.S.N.A.—Mrs. Mildred Pryse, Albany.

ACCELERATED PROGRAMS FOR GEORGIA SCHOOLS OF NURSING

RUTH A. BABIN, R.N.
Atlanta

President, Georgia League of Nursing Education

A profession must exercise its two primary functions if it is to continue to exist. These

functions are: (1) to meet adequately the need for the type of service in which it professes competence, and (2) to create an educational method of enriching, preserving and passing on a growing and specific body of knowledge.

The nursing profession cannot meet adequately the needs of military and civilian nursing service through numbers alone—serious consideration must be given to the preparation of these num-

<i>Name and Location of School</i>	<i>Av. Pts.</i>	<i>No. of Student Nurses</i>	<i>Director of School</i>
ATLANTA			
†Crawford W. Long Hospital	218	134	Ruth A. Babin, R.N., B.S.
†Georgia Baptist Hospital	160	142	Dana Hudson, R.N.
*Grady Hospital	211W 231C	130 137	Annie Bess Feebeck, A.B., R.N.
†Piedmont Hospital	116	88	Genevieve Garren, R.N.
†St. Joseph's Infirmary	110	68	Sister M. Incarnata, R.S.M., R.N.
AUGUSTA			
*University Hospital	182W 104C	101 52	Alice F. Stewart, R.N.
COLUMBUS			
City Hospital	129	62W 30C	May Sanders, R.N.
EMORY UNIVERSITY			
*†Emory University Hospital	198	128	Elizabeth McClellan, R.N. (Act. Dir.)
MACON			
Macon Hospital	163	82	Elizabeth Branch, R.N.
†Middle Georgia	41	34	Erma Matthews, R.N.
†Oglethorpe Private Infirmary	26	26	Coralie Brady, R.N.
MILLEDGEVILLE			
†Milledgeville State Hospital	349	37	Mrs. Mae M. Jones, R.N.
SAVANNAH			
†St. Joseph's Hospital	85	50	Sister M. Mildred, R.S.M., R.N., B.S.
Warren A. Candler Hospital	64	50	Louise F. Lenhardt, R.N.
<i>Affiliating Schools for Pediatrics Only</i>			
ATLANTA			
Henrietta Eggleston Hospital for Children			Frances Harkness, R.N.
LOUISVILLE, KY.			
Children's Free Hospital			Mina Edenfield, R.N.
NEW YORK, N. Y.			
Bellevue Hospital			Blanche Edwards, R.N., M.A.

*Have affiliating students in addition to regular students.

†Send students to other schools for affiliation.

Information relative to admission requirements may be secured from Directors of the individual schools.

bers. It is the belief of many nurse educators that the program in our schools of nursing can be accelerated, but it cannot be done in a haphazard manner and accomplish the desired end. Just lopping off six, eight or twelve months is not the answer to the problems. There must be careful analysis of each unit of study and experience in terms of its value in the education of nurses. The student nurse of today should be protected from being discriminated against in the future because her preparation was not equal to that of the nurse who graduated before or after her. Non-essential and unnecessary repetition can be safely eliminated, courses can be combined, provision can be made for better balance of experience in its various clinical services.

In considering the acceleration of nursing programs it is important to point out that the kind of acceleration which has been made effective in many colleges during the past year, through the use of vacation period (12 weeks), is not possible in schools of nursing which are already operating on a forty-eight, forty-nine or fifty-week year. To accelerate by decreasing vacation time for students in schools of nursing would be folly, and would hardly be justified at a time when the maintenance of personal health is of such great importance in the war effort.

Plans for acceleration must also be based on recognition of the importance of student nurse service to civilian institutions whose graduate nurse staffs are becoming more and more depleted. The recommendation that a thirty-six month period be continued (for high school graduates) and that all organized instruction be completed within thirty months, leaving the last six months for supervised experience, was made with this in mind. If the national emergency should become more acute, these senior student nurses could be assigned to military hospitals for their last six months of supervised practice, thereby relieving an equal number of army nurses for service in the theatre of war.

At this time graduates from all Accredited Schools of Nursing in Georgia meet the requirements for Red Cross enrollment and are qualified to serve in the Army or Navy Nurse Corps. Above is a list of schools of nursing meeting the advisory standards of the Board of Examiners of Nurses for Georgia for the school year 1942-43.

COMMUNICATION

Emory University Medical Alumni:

In keeping with the wishes of the Office of Transportation of the United States Government, your officers have decided *not* to hold the Post-Graduate June Clinics this year. The reasons for our decision are at once apparent to all, and I am sure that you will aid in main-

taining the morale of the Medical Alumni Association until such time as we can meet again.

May we take this time to extend greetings to our alumni in the armed forces and those on the home front.

WALTER C. JONES, '21M, *President.*

EVERT A. BANCKER, '25M,
Secretary and Treasurer.

NEWS ITEMS

The Baldwin County Medical Society met in the Reception Room of the Milledgeville State Hospital, March 25. Two moving pictures were shown: "Save A Day" and "Middletown Goes To War." Dr. George Shipman, Industrial Division of the State Department of Public Health, U. S. Public Health Service, was a guest speaker and spoke on "The Aims and Activities of the Department." He was introduced by the secretary-treasurer, Dr. Herbert M. Olnick. The society will meet bi-monthly on the third Thursday. Those present were: Doctors J. M. Anderson, S. A. Anderson, W. A. Bostick, J. D. Bradley, Thos. C. Clodfelter, David Ferguson, J. L. Garrard, L. P. Longino, Herbert M. Olnick, E. W. Schwall, Z. S. Sikes, E. Y. Walker, John D. Wiley and Y. H. Yarbrough.

The Bibb County Medical Society met at Ridley Hall, Macon, April 20. Lieut. Comdr. E. V. Boger, M.C., United States Navy, Spoke on "Systemic Poisoning from War Gases." Dr. R. W. Edenfield, Macon, is secretary-treasurer.

The Georgia Medical Society, Savannah, met at the Savannah Army Base. Col. Kenneth G. Gould was host. The program included ward rounds, displays and presentations of cases with dinner at 8:00 P.M.

Dr. Clair A. Henderson, Augusta, Richmond County Commissioner of Health, spoke at a luncheon of the Woman's Club, April 6, on "Tuberculosis the No. 1 Problem of the Health Department This Year."

The Ware County Medical Society held a business meeting at the Y. M. C. A., Waycross, April 7.

The First District Dental Society met at Hotel DeSoto, Savannah, April 8. Guest speakers were: Dr. H. C. Frech, spoke on the "Use of Narcotics in Dentistry"; Dr. Emerson Ham, "The Function of the Casualty Station in Civilian Defense."

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, May 6. Dr. Floyd W. McRae spoke on "Highlights of Surgery for 1942"; Dr. C. C. Aven and Dr. Robert C. Major presented a paper on "Spontaneous Pneumothorax." The discussions were led by Dr. Joseph C. Massee and Dr. Champ Holmes.

The Georgia Medical Society, Savannah, met on May 25. A motion picture was shown entitled "The Diagnosis of Urological Conditions"; two reports of cases by Dr. Walter A. Norton, "Inversion of the Uterus."

(Continued on page 184)

WOMAN'S AUXILIARY

President—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.

President-Elect—Mrs. W. T. Randolph, Winder.

First Vice-President—Mrs. Ralph Fowler, Marietta.

Second Vice-President—Mrs. L. W. Williams, 135 East 45th-St., Savannah.

Third Vice-President—Mrs. Richard Binion, Milledgeville.

Recording Secretary—Mrs. Chas. Usher, 6 East Liberty St., Savannah.

: OFFICERS 1943-44

Corresponding Secretary—Mrs. H. H. Askew, 1329 Springdale Road, Atlanta.

Treasurer—Mrs. Lucius N. Todd, Rural Delivery No. 2, Augusta.

Historian—Mrs. W. W. Puett, Norcross.

Parliamentarian—Mrs. Lee Howard, 625 East 44th St., Savannah.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N.W., Atlanta.

Mrs. Schaefer's Message

Mrs. Bruce Schaefer, of Toccoa, president-elect of the Woman's Auxiliary to the Medical Association of Georgia, urges members to note the suggestions made by the War Participation Committee of the American Medical Association recently. These suggestions follow and members are asked to bring them to the attention of the lay public whenever possible:

"Educate the public in ways that may help our limited number of doctors during the present war crisis. Call the doctor to your home only when necessary. Go to his office when you can. Help the doctor to plan proper use of his time by calling him before 9 A.M. whenever possible. Have an examination at the first sign of sickness, as this helps prevent long and serious illness. Some conditions are best treated in the hospital. Cooperate by providing in advance against the cost of hospitalization. Go to the hospital when the doctor recommends it. Have yourself immunized against smallpox and lockjaw. Avoid overeating, overdrinking, overworking and over-exercising. Get a good diet. Follow the rules of personal hygiene. Women should take first aid courses and nurses' aid training of the Red Cross. This will help relieve the burden on the physicians and nurses in the hospital and in the home. Every doctor not already in the armed forces is probably doing extra work in industry, public health and in his private practice. Help him to conserve his health by avoiding any unnecessary responsibilities for him."

Savannah Auxiliary

The wives of doctors stationed at Hunter Field and the Marine Hospital in Savannah were guests of honor at the recent meeting of the Woman's Auxiliary to the Georgia Medical Society in Savannah. The visitors were introduced by Mrs. R. V. Martin, president, and many of them volunteered to help with the Auxiliary's work during their stay in Savannah. A feature was the talk given by Mrs. J. R. Rayburn, president of the Woman's Auxiliary to the Oklahoma Medical Association, who gave a summary of the work of that organization.

Mrs. L. W. Williams was named chairman of a committee to present names of new officers at the next meeting, others on the committee being Mesdames Harry McGee, W. R. Dancy,

J. J. O'Neill and Lee Howard. Mrs. Charles Usher conducted a memorial service for three members who have recently passed away, Mesdames J. S. Howkins, T. P. Waring and Frederick Wall. Mrs. Ruskin King sang "There Is A Green Hill Far Away." Mrs. W. R. Dancy, health chairman, announced that the films shown by the Auxiliary were presented before 17,000 children and 300 adults during January. Announcement was made that plans to participate in the cancer drive would be completed at a called meeting of the executive board. It was announced that a nutrition class is being formed.

Mrs. Lee Howard explained to the guests the reason for observing Doctors' Day and Mrs. H. H. McGee announced the Auxiliary's plans for the day. The meeting was held at the home of Mrs. G. H. Lang and during the social hour Mrs. Lang and the co-hostesses, Mesdames L. W. Williams, H. H. McGee, J. C. O'Neal, W. R. Dancy and Shelton Sanford, served refreshments. The next meeting will be held with Mrs. L. W. Shaw.

Baldwin County

The Woman's Auxiliary to the Baldwin County Medical Society met recently at the home of Mrs. E. Y. Walker in Milledgeville. Mrs. J. Lon King, of Macon, president of the Woman's Auxiliary to the Medical Association of Georgia, was honor guest and gave an inspirational talk on what doctors' wives can do in the war time campaign to be sentinels on the home front. Mrs. Richard Binion, president, presided over the business session, and the following officers were elected: Mrs. Sam Anderson, president; Mrs. J. I. Garrard, first vice-president; Mrs. George Echols, second vice-president; Mrs. J. D. Bradley, third vice-president; Mrs. L. A. Bailey, treasurer; and Mrs. C. B. Fulghum, recording and corresponding secretary. Mrs. Sam Anderson and Mrs. Edwin Allen were elected delegates to the state convention, with Mrs. Y. H. Yarbrough and Mrs. L. P. Longino alternates. The Auxiliary meetings this year have been held in the bandage rooms, one in the business district, the other at the state hospital, each room supervised by members of the Auxiliary.

Richmond County

The Woman's Auxiliary to the Richmond County Medical Society met recently with Mrs. Robert



Blood Type Registry—Woman's Auxiliary to the Fulton County Medical Society, Academy of Medicine, Atlanta.

E. Leonard in Augusta. Plans were made for Doctors' Day and Mrs. Ralph Chaney read a paper on "Be Informed About the Woman's Auxiliary to the American Medical Association." Later a social hour was enjoyed. Another recent meeting of the group was held at the home of Mrs. Everett Sanderson in Augusta. Mrs. Claude Burpee read a paper on the life of Dr. A. A. Davidson, of Augusta. The group entertained members of the society at a picnic on Doctors' Day at the home of Dr. and Mrs. Richard Torpin.

Hygeia Contest

The Woman's Auxiliary to the Fulton County Medical Society has been awarded the third prize of \$15 in Group IV in the circulation contest sponsored by the American Medical Association for auxiliaries obtaining the largest number of subscriptions to *Hygeia*, the national health magazine. Group IV included Auxiliaries throughout the country with memberships of from 43 to 643. The Woman's Auxiliary to the Randolph-Terrell Counties Medical Society also was cited in the group that reached or went over its quota. Mrs. Edgar H. Greene, of Atlanta, is president of the Woman's Auxiliary to the Fulton County Medical Society and Mrs. Jeff Richardson was *Hygeia* chairman. *Hygeia*, published monthly by the American Medical Association, is filled with authentic health information and all groups of the Woman's Auxiliary to the American Medical Association seek to have it placed in libraries, schools, offices, etc.

Barrow County

The Woman's Auxiliary to the Barrow County Medical Society met recently with Mrs. E. M. McDonald at her home in Winder. Mrs. C. B. Almand, president, used for the devotional Matthew 27:42. "He saved others: Himself He Cannot Save." applying the reading to the physician. Mrs. S. T. Ross read the Doctors' Day Acrostic by Mrs. Leonard Massengale, of Lumpkin, state Doctors' Day chairman. Under war activities,

it was reported that members had completed courses in home nursing, nutrition, standard, advanced and instructor's first aid, and nurses' aid. The health chairman reported that 31 health films had been shown to 2,377 people and that talks on cancer had been given. Plans were made for observing Doctors' Day. The president appointed the following nominating committee: Mesdames W. L. Matthews, W. T. Randolph and E. M. McDonald. A delightful social hour followed the business meeting.

Randolph-Terrell

The Woman's Auxiliary to the Randolph-Terrell Medical Society met recently at the Gay Hotel in Cuthbert, seven members attending. Mrs. J. A. Sims read a paper on the life and labors of Dr. Arthur T. Fort. Each member answered roll call with a description of doctors' customs during the centuries. Mrs. L. R. Massengale was elected president for the ensuing year, with Mrs. Loren Gary secretary-treasurer. Members voted to serve no refreshments at meetings for the duration of the war.

Habersham County

The Woman's Auxiliary to the Habersham County Medical Society met recently at the home of Dr. and Mrs. O. N. Harden in Cornelia. Mrs. Bruce Schaefer, of Toccoa, president-elect of the Woman's Auxiliary to the Medical Association of Georgia, had planned to attend the meeting but was unable to do so. In Mrs. Schaefer's absence a letter from her, in which she outlined Auxiliary plans, was read. Mrs. Cyrus Sharp, the former president, has moved away as Dr. Sharp is in the service but Mrs. D. H. Garrison is ably carrying on as president. Members observed Doctors' Day by sending cards and the booklet compiled by Mrs. Leonard Massengale, state chairman, to all doctors in the county. Despite the tire and gasoline situation, members of the Auxiliary are attending all meetings and carrying on their work.

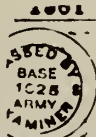
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Sec. Treas. Medical Association of Ga.
478 Peachtree St.
Atlanta Ga.

Harry C. Mottley, Capt. MC.
(Reader's Name)
APO 826
330 Surgical Hospital
(To Whom's Address)
San Francisco, Cal.
Mar 24, 1943
(Date)

3688

Dear Dr. Shanks,
your letter with the enclosed membership card of the Medical Association of Georgia reached me here in Australia after having been forwarded from several places in the States.

You can't imagine how I felt. It has been over two years since I left my practice because of my being ordered to duty with the Army and at times we feel that we hate to think of "starting over" again in private practice. Just to know and have it impressed upon me by the card and your letter that things do not alter any time means a lot.



I hope to return to active membership in Athens some day. Truly yours,
Harry C. Mottley

WAR BONDS

V-MAIL

NEWS ITEMS

(Continued from page 180)

The Bibb County Medical Society met at Ridley Hall, Macon, May 4. A moving picture film in colors on "Vitamin B Complex Deficiencies" was shown.

Staff meeting of Grady Hospital, Atlanta, was held on May 2. Capt. Wm. Maloney, M.D., spoke on "Syncope as Seen at Blood Donor Center"; report of cases entitled "Results of Surgical Treatment of Peptic Ulcer," "Lupus Erythematosus" and "Scleroderma" were discussed.

The regular staff meeting of the Emory University Hospital was held on May 4. Dr. Van Buren spoke on "Periarteritis Nodosa"; Dr. Ed Wright, "Surgical Treatment of Abductor Paralysis of Larynx"; Dr. Platt, "Clinical Importance of RH-Factor."

The staff of Grady Hospital, Atlanta, met on May 16. Subjects discussed were "Subarachnoid Hemorrhage," "Scleroderma," "Common Duct Stone" and "Chronic Lung Disease with Heart Disease."

The Bibb County Medical Society met at Ridley Hall, Macon, May 18. Two films were shown entitled "Cancer of the Female Breast." Dr. Chas. H. Richardson led the discussion.

Dr. Bruce Swain, formerly of Dahlonga, has moved to Clarkesville and associated in the practice of medicine with Dr. D. H. Garrison.

The staff meeting of the Georgia Baptist Hospital, Atlanta, was held on May 18. A diagnostic problem, "Intractable Headache" was discussed.

The regular monthly meeting of the Ware County Medical Society was held at the Ware Hotel, Waycross, May 5. Hosts to the Society included the following: Dr. W. F. Reavis, Waycross; Dr. R. R. McCollum, Kingsland; Dr. D. B. Terry, Homerville; and Dr. W. C. Hafford, Waycross.

The regular meeting of the Clinical Society of the New York Polyclinic Medical School and Hospital, New York City, was held on May 3. Subjects on the program were: "The Sulfonamides" by Dr. James P. Croce; "Blood Pressure and the Total Individual," Dr. John Carroll; "The Treatment of the Paroxysmal Tachycardia and Auricular Fibrillation," Dr. Harold E. Pardee; "The Management of Lung Abscess," Dr. George G. Ornstein; "Apocrine Breast Cancer (Colored Motion Picture)," Dr. Herbert C. Chase; "Evaluation of Excretion Urography as Compared with Instrumental Urography," Dr. Joseph F. McCarthy; "Gastroduodenal Ulcers: Its Surgical Approach," Dr. Robert E. Brennen; "The Hypertonic Infant," Dr. Sidney V. Haas; "Premature Babies," Dr. W. Morgan Hartshorn; "Endometrial Implant Occurring in Abdominal Scar Following Cesarean Section," Dr. Edward H. Dennen; "The Treatment of Empyema as a Postoperative Complication," Dr. Henry I. Goodwin; "Three Simple Tests for Bedside and Office Diagnosis of Liver Disease," Dr. Samuel Weiss; and "The Status of Gastroenterology in Medicine," Dr. G. Randolph Manning.

The visiting staff of Grady Hospital, Atlanta, met on May 11. Dr. Frank K. Boland reported a case, "Acute Perforated Duodenal Ulcer"; Dr. Robert Major, Dr. Cleve Ward, Dr. Frank K. Boland and Dr. Lon Grove reported cases of "Carcinoma of the Esophagus." Dr. George Fuller is secretary of the Program Committee.

OBITUARY

Dr. Henry Martin McGehee, Talbotton; Emory University School of Medicine, Emory University, 1916; aged 51; died on April 11, 1943, in an Atlanta hospital. He was a prominent physician and had many friends in Talbot and adjoining counties. Surviving him are his widow, two daughters, Mrs. Emily Sikes, Valdosta, and Miss Mary Kline McGehee, Miami, Fla. Burial was in Talbotton Cemetery.

Dr. Erford Haskell Lamb, Cornelia; member; Atlanta College of Physicians and Surgeons, Atlanta, 1911; aged 66; died on April 23, 1943, after an illness of short duration. He was born in Colrain, Massachusetts. Moved to the South with his parents when only 14 years old. He was a hard working, conscientious physician. Since so many younger physicians were called to military service, Dr. Lamb made a great effort to do his personal practice and his share of the practice left by physicians in service. The strain was heavy and included long hours of work. He was a member of the Habersham County Medical Society, Ninth District Medical Society and the Methodist church. Surviving him are his widow, one daughter, Mrs. Louise Percell, Cornelia; and one son, Sergeant Haskell Lamb, Newport News, Va. Rev. G. W. Hamilton and Rev. C. L. Percy officiated at the funeral services conducted at the Cornelia Methodist church. Interment was in Demorest Cemetery.

Dr. Marvin Wilson McLarty, Atlanta; member; Atlanta College of Physicians and Surgeons, Atlanta, 1911; aged 65; died April 27, 1943, at a local hospital after a long illness. He was a native of Paulding County. Dr. McLarty did an extensive practice and was held in high esteem by many acquaintances. He practiced medicine in Atlanta during his entire professional career. He was a member of the Fulton County Medical Society, the Shrine, and Calvary Methodist church. Rev. T. M. Sullivan officiated at the funeral services conducted at Calvary Methodist Church. Burial was in West View Cemetery.

Dr. Winbon Joseph Long, Townsend; University of Georgia School of Medicine, Augusta, 1901; aged 63; died April 28, 1943. He was active in civic affairs and leader in charitable undertakings. He was helpful and generous to those in need. Dr. Long practiced many years in McIntosh and adjoining counties. He was a good citizen.

Dr. Theodore Toepel, Atlanta; member; Atlanta College of Physicians and Surgeons, Atlanta, 1899; aged 74; died on March 12, 1943, of heart disease. He was public spirited and was among the first to sponsor and work for physical education in the public schools of Atlanta. Dr. Toepel gave freely of his time and services as a gymnasium instructor in the public schools. He served

on many of the important committees of the Medical Association of Georgia and during the existence and activities of the Committee on Health and Public Instruction, he served as an enthusiastic chairman. Dr. Toepel and four co-workers established the Crippled Children's League of Georgia. His practice was limited to orthopedics. He was past president of the Fulton County Medical Society, member of Atlanta Lodge of Elks, Shrine and Unitarian-Universalist Church. Dr. Toepel was born in Eisleben, Germany, came to Atlanta 48 years ago. Surviving him are his widow, one daughter, Mrs. J. Maxwell Little, Winston-Salem, N. C.

Dr. George P. Florence, Greenville; Atlanta School of Medicine, Atlanta, 1911; aged 54; died February 28, 1943, from injuries received in an automobile accident. He was a prominent physician of the Durand section. Was a successful practitioner and had many warm friends. Surviving him are his widow, two sons and four daughters. Funeral services were held at Durand and burial was in the Durand Cemetery.

Dr. Edward Cooper Smith, Donalsonville; member; Atlanta College of Physicians and Surgeons, Atlanta, 1907; aged 59; died on March 15, 1943, after a long illness. He was born in Shorter, Alabama. He studied at the Alabama Polytechnic University at Auburn. He took post-graduate work at Tulane University, University of Louisiana School of Medicine, New Orleans. He practiced medicine at Jakin for 17 years then moved to

Donalsonville. Dr. Smith was a leading citizen in Seminole County. He had the most extensive practice of any physician in that territory. He served as mayor of Donalsonville, vice-president of the Merchants and Farmers Bank, president of the Lions Club, president of the Donalsonville Chamber of Commerce, member and steward of the Donalsonville Methodist Church, past master of three Masonic lodges. He was held in high esteem by thousands of friends. Rev. C. L. Nease and Rev. W. M. Haywood officiated at the funeral services conducted at the Donalsonville Methodist Church. Burial was in the Donalsonville Cemetery.

Dr. Pleasant Lewis Burgess, Bowdon; member; Southern College of Medicine and Surgery, Atlanta, 1912; aged 62; died March 14, 1943, at his home in Tyus community, near Bowdon. He was born in Randolph County, Alabama. He began the practice of medicine at Larmar, Alabama, later moved to Loftin, Heard County, where he practiced until he removed to Tyus. Dr. Burgess had an extensive practice in Carroll and Heard Counties. He was a member of the Carroll County Medical Society, member and deacon of the Tyus Baptist Church. Surviving him are his widow, one daughter, Miss Helena Burgess; two sons, Lieut. Quinton L. Burgess, U. S. Army Air Corps, Topeka, Kansas, and Joseph Wayne Burgess, Tyus. Rev. Gordon Willingham, Rev. O. C. Morton and Rev. Herman Caldwell officiated at the funeral services conducted at the Tyus Baptist Church. Interment was in the Tyus Baptist Churchyard.

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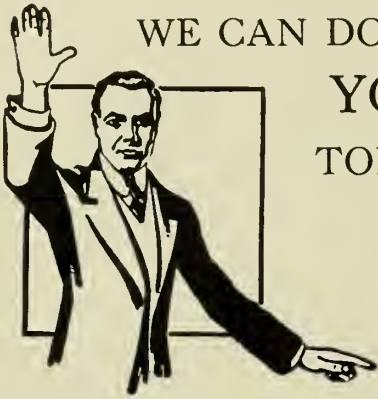
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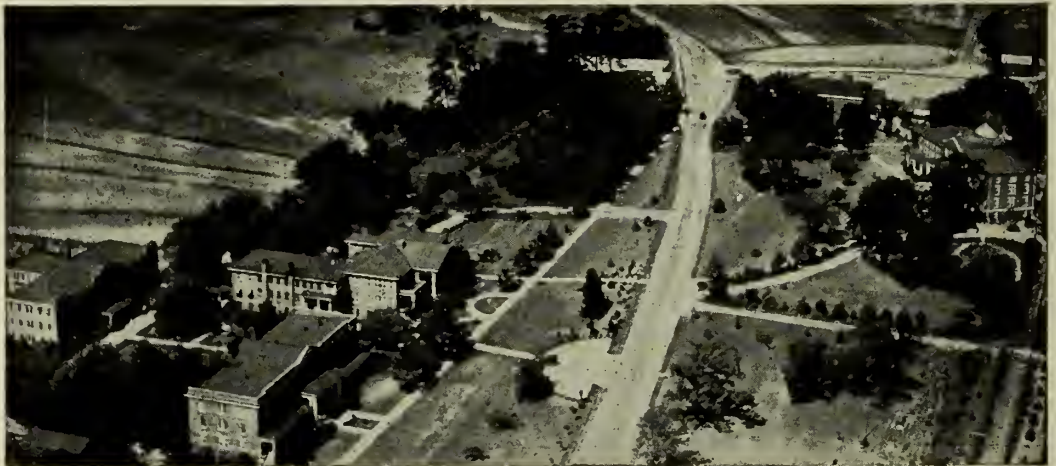
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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

VOL. XXXII

Atlanta, Georgia, June, 1943

Number 6

SYMPOSIUM ON EYE, EAR, NOSE AND THROAT PROBLEMS

ANEURYSM IN THE EYELID

Report of Case

S. J. LEWIS, M.D.
Augusta

Aneurysm in the eyelid appears to be an extremely uncommon affection. In fact, a rather close search of the literature for the past 15 years failed to reveal that any reports of aneurysm at this site have been made. It is because of the rarity of this malady in connection with the ocular apparatus that the following is brought to your attention:

Report of Case

A colored female, aged 19, was referred to me on Aug. 2, 1941, by Dr. W. H. Mathis of this city, the complaint being that for a period of six months the right upper lid had been swollen.

Examination on this date revealed the presence in the nasal third of the right upper eyelid of an enlargement about $3/5 \times 1/2$ inch in diameter. This ovoid-shaped tumor was soft, and on palpation a thrill, synchronous with the pulse, was distinctly noted. There were no visibly enlarged blood vessels leading into the enlargement. The palpebral conjunctiva showed no alterations, and no pain was complained of. There was some ptosis, and this gave rise to inconvenience because of the sagging lid. The eyes were of normal appearance and position in the orbits. The external ocular muscles were active, and there was no diplopia. The vision for distance was 20/20, each eye separately, and the accommodation was within normal limits. The fundi showed no abnormalities. The Wassermann reaction of the blood was positive. There was no history of injury. The diagnosis of aneurysm in the right upper eyelid was made, and the patient was advised to resume antisyphilitic medication until surgical measures could be resorted to.

This patient was lost sight of until Jan. 21, 1942. At that time the skull was x-rayed for the purpose of determining whether any bony erosions had developed, the report of Dr. L. P. Holmes being as follows: "Stereo of right lateral skull and anteroposterior view of skull show rather thick skull vault. No evidence of erosion or intracranial calcification. The para-nasal sinuses show no evidence of infection." At this time the aneurysm was slightly larger than it was on the previous visit.

This woman again failed to report as directed, but returned in March of this year. On March 27 it was thought to be of interest to learn whether any thoracic disturbances had occurred. The x ray report on this date was as follows: "Flat film of the thorax shows slight fullness of the heart shadow. No evidence of aneurysm. Lungs appear to be negative." At this time the skull was again investigated, but no bony abnormality was noted. By now the aneurysm had increased considerably in size, and the left upper eyelid was beginning to show a tumor. The thrill was now present in both lids, and there were visibly enlarged vessels leading into the lids from the forehead.

This girl was admitted to the University Hospital on April 7, 1942, and on that date the physical examination disclosed that the temperature was 98, pulse 90 and blood pressure 170/100. There was a systolic murmur, and the pulmonic second sound was accentuated. No other abnormalities were elicited.

On the following day the patient was operated on under general anesthesia. With the aid of Dr. Everard A. Wilcox and Dr. W. J. Williams a curved incision extending laterally over the brow from above the bridge of the nose was made, and the lower flap dissected downward. The ophthalmic artery supplies the region of the orbit by dividing into a nasal, frontal and palpebral branches. In my patient the palpebral branch was involved, and it is probable that the frontal was also implicated. Considerable dissection, especially in the eyelid itself, was necessary to expose the vessel that required ligation. The contents of the orbit, including the orbital fat, were disturbed in the course of the operation, and maybe this fact partially explains the degree of cellulitis which subsequently developed. This inflammatory reaction manifested itself in the form of severe proptosis and chemosis. These symptoms are subsiding, but they have not disappeared. The postoperative temperature did not go above 100. The laboratory report of the specimen submitted was that the muscularis of the vessel was deficient.

DACRYOCYSTORHINOSTOMY

The Logical Treatment of Occlusion of the Lacrimal Sac

ALTON V. HALLUM, M.D.
Atlanta

During the past decade there has been an increase in the number of ophthalmologists who perform some form of plastic dacryocystorhinostomy to re-establish intranasal drainage of the lacrimal sac. However, the great majority still resort to extirpation of the lacrimal sac and condemn the majority of the patients to a lifetime of lacrimation and its resulting impairment of vision.

Historical Resume

In recent years there has been extensive reviews of the literature by Chandler¹, Rychener², Stokes³, Yanes⁴, Hughes, Guy, and Bogart⁵, Traquair⁶, and others. Stokes prefers transplantation of the lower end of the sac through a new bony opening into the nose, but all of the others mentioned prefer suturing of the sac walls to the nasal mucosa. Each reports a series of operations with highly successful results.

Woolhouse and Platner in the early eighteenth century were probably the first to perform operations to re-establish the physiologic drainage of the lacrimal sac into the nose. The operation was apparently not widely accepted and it was not until 1904, two centuries later, that Toti, an Italian rhinologist, revived the subject by describing good results from an operation which consisted of the removal of the nasal wall of the lacrimal sac and a corresponding area of the underlying lacrimal bone and nasal mucosa to re-establish communication between the lacrimal sac and the nose.

Kuhnt, in 1914, was the first to suggest sutures in approximating the mucous membranes. Ohm, in 1920, made vertical slits in the nasal mucosa and lacrimal sac wall and sutured the posterior and anterior flaps respectively. In 1921, Dupuy-Dutemps and Bourguet described a similar operation which in their series of a large number of



Fig. 1.
The Incision.

cases has proven to be 94 per cent successful. Fosmark, in 1911, described an operation whereby the sac was lifted from its bed and the lower end of the sac pulled into the nose through a new bony opening. This transplantation of the sac seems to be somewhat limited only to those cases where obstruction is limited to the lower end of the lacrimal sac.

Comment

The technic popularized by Dupuy-Dutemps has given the highest percentage of successful results in the hands of different surgeons. Both Rychener and Chandler report 100 per cent successful results (no tearing and no discharge), in their series. It was this fact, and especially the teaching and writing of Rychener, that led me to select this one of the many modifications of the original Toti operation. My series of 12 cases, operated on the past two years, has likewise been 100 per cent successful, except that most of the patients complain of slight lacrimation when in the wind, and during an attack of acute coryza.

Contraindications and Indications

Dacryocystorhinostomy is contraindicated only in those cases in which the puncta and canaliculi are occluded, and in malignant or tuberculous involvement of the sac. The operation should be postponed until any acute inflammation has subsided. The nose should be examined before the operation and any high deviation of the nasal septum toward the side of the oc-

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Read before the Medical Association of Georgia, Augusta, April 30, 1942.

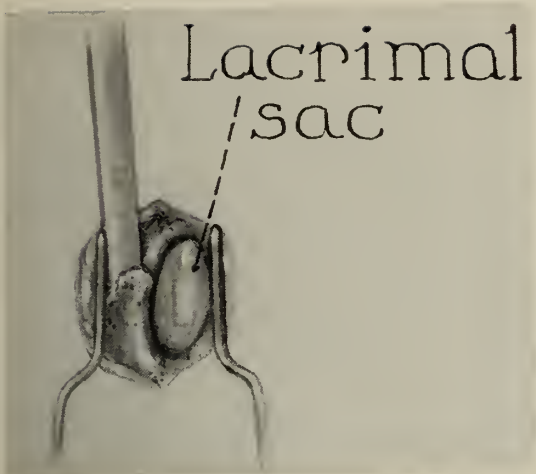


Fig. 2.
Beginning the bony window, with chisel astride the anterior lacrimal crest.

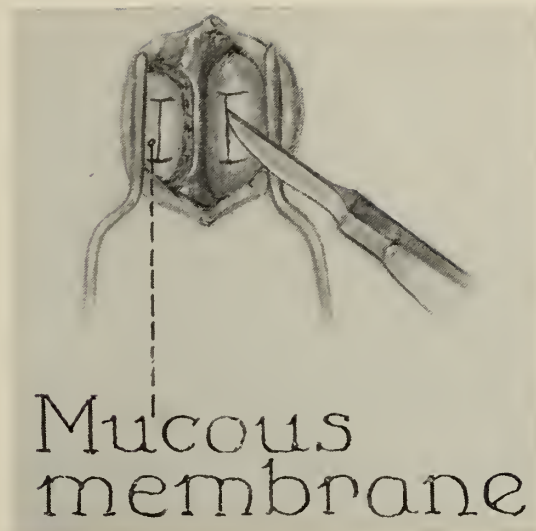


Fig. 3.
Anterior and posterior flaps are made by making capital I incisions in the nasal mucous membrane and lacrimal sac wall.

cluded sac should be resected. The anterior tip of the middle turbinate should be removed if it is unusually cystic and enlarged. Polypoid growths should be removed and any active sinusitis should be controlled. According to Chandler, Mosher removes the anterior tip of the middle turbinate in all cases, but Traquair is of the opinion that preliminary intranasal operations are practically never necessary. Extirpation was substituted for dacryocystorhinostomy in a patient in whom there was complete atresia of the anterior nares from a crushing injury to her face in childhood. Traumatic and nontraumatic stenosis of the lower end of the sac is a particular indication for the operation. If a draining fistula is present, the fistula will usually close spontaneously within a few days after a new opening is established into the nose. One patient of my series had previously had an extirpation, but mucopurulent material could be expressed from the puncta. The small cystic space at the region of the cut ends of the canaliculi was anastomosed with the nasal mucosa, and drainage into the nose was re-established.

Technic

Anesthesia. The usual preoperative sedatives should be given. The operation may be done equally well under general or local anesthesia, but in local anesthesia there is usually much less troublesome bleeding. Sodium pentothal intravenously is especially well suited for this operation, and it is unnecessary for the anesthetist to

work near the operative field.

If local anesthesia is selected, a pledget of cotton soaked with some local anesthetic, as 10 per cent cocaine, 2 per cent nupercaine, or 2 per cent pontocaine, should be placed high in the nasal fossa. Two per cent solution of novocaine, containing 5 drops of 1:1000 epinephrine hydrochloride to the ounce, is injected in three areas, using a long, fine (27 gauge) needle. About one-half cubic centimeter is injected just beneath the skin along the site of the incision; about one and one-half cubic centimeters are injected close to the bone just below the supraorbital notch, extending downwards under the dome of the sac. Another injection of two cubic centimeters is made over the infraorbital foramen, and the point of the needle is pushed upwards and medially to infiltrate beneath the sac.

Incision. The incision is the same as usually made for removal of the lacrimal sac. It is begun three millimeters above and three millimeters nasally to the inner canthus, and is carried downwards and slightly outwards for one and one-half to two centimeters. The incision is carried down to the bone in its entire length. If the angular vein or artery is cut, it will save time to tie the cut vessel with catgut. Retractors are then inserted into the wound which will control the usual bleeding. The palpebral ligament at the inner canthus is identified and cut. Throughout the entire

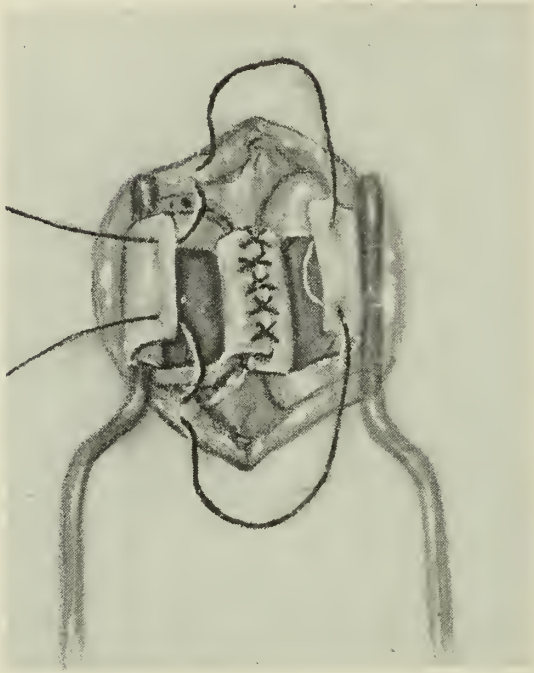


Fig. 4.

The posterior flaps have been sutured together, and the anterior flaps are ready to be united. Note that the suture is passed through the periosteal tissue on the anterior rim of the bony window which will lift the anterior flaps out of the new passage way.

operation the assistant's main duty should be to keep the operative field free of blood by using the suction tip constantly, and the surgeon should not lose time stopping the oozing type of bleeding. In addition to the operating room spotlight, an electric head-light on the surgeon will prove helpful in illuminating the depth of the operative field. The periosteum is incised along the nasal margin of the anterior lacrimal crest, and is then pushed laterally uncovering the crest. The sac is carefully separated from the floor of the lacrimal fossa by means of a nasal mucous membrane separator and the sac is likewise pushed laterally exposing the posterior lacrimal crest. The sac is separated downwards as far as possible into the mouth of the nasolacrimal canal.

Perforation of the bone. With hammer and chisel an opening is made through the lower portion of the anterior lacrimal crest, care being taken not to perforate the underlying nasal mucosa. If the patient's head is placed in the usual head-block used in mastoid surgery, there will be less jarring produced by the hammer. The opening is enlarged with Karrison's forceps until the bony window is at least twelve millimeters vertically and ten millimeters hori-

zontally. The bony opening should be kept as low and as far forward as possible in order to avoid the anterior ethmoid cells. Some surgeons prefer a motor driven burr to make the opening in the bone, but the hammer and chisel are generally safer.

The mucosal flaps. The lacrimal sac can be positively identified by passing a small probe through the inferior canaliculus. A capital "I" incision is made in the nasal wall of the lacrimal sac by slitting the sac from a point opposite the upper margin of the bony window to a point opposite the lower margin of the bony window. A sharp pointed knife is used, and care must be taken to incise all layers of the sac wall the entire length of the incision. The upper and lower ends of the incision are extended anteriorly and posteriorly with the same knife, or with scissors, forming an anterior and posterior flap. A similar incision is made in the nasal mucosa. The margins of the respective posterior flaps are then sutured together, using 0000 chromic catgut on $\frac{3}{8}$ circle $\frac{1}{2}$ inch atraumatic needle; two sutures are usually sufficient. The anterior flaps are then sutured in a similar manner, except that the periosteum and subcutaneous tissue on the anterior rim of the bony window are included in the sutures, as suggested by Rychener, which elevates the newly-formed anterior canal wall out of the bony window.

Skin Suture and Dressing. The skin is closed with fine silk sutures, care being taken to insert the suture near the edge of the wound which will approximate the edges of the skin without puckering or rolling in. A thin layer of petrolatum is spread over the incision, followed by gauze pads, and a moderately firm pressure bandage.

Postoperative Care. The patient should be kept in bed for 24 hours, and can leave the hospital the second postoperative day after the dressing has been removed, and the new passageway irrigated. Normal physiologic solution of sodium chloride is injected gently into the lower punctum. A small rubber bulb fitted with a small round tipped glass nozzle, commonly used to irrigate the anterior chamber after cataract extraction, is preferable to the syringe and needle. An eye pad is applied, and

the eye is dressed daily for three days longer, when the sutures are removed, followed by an eye pad for 24 hours longer. The irrigation should be repeated at the daily dressings, if the previous day's irrigation washed any blood into the nose.

Complications

No postoperative complications were encountered in my series, except that in two patients the anterior tip of the middle turbinate blocked the opening into the nose. The anterior tip was removed under local anesthesia on the fifth, and eighth day, respectively. The nose should be inspected at the end of the operation, and the anterior tip of the middle turbinate removed with Hartman forceps if it tends to block the opening. An occasional slight hemorrhage into the nose has been reported, but intranasal packing is almost never necessary for its control.

Conclusions

Dacryocystorhinostomy is the operation of choice in all cases of occlusion of the lacrimal sac, except when the puncta and canaliculi are occluded, or when the sac is involved by a malignant or tuberculous process. The operation has proved highly successful in the hands of many operators, and the surgeon should feel that it is his moral obligation to his patient to re-establish intranasal drainage of the lacrimal sac.

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FIND HAIR'S BREADTH IS NOT UNIFORM

Using the term "a hair's breadth" to signify an extremely small unit of measurement means nothing, scientifically at least, since recent studies on human hair made by Morris Steggerda and Mrs. Ruth Eckardt of the Carnegie Institution at Washington, D. C., prove that hairs from different parts of the body vary greatly in their width. S. R. Winters of the same city reports in *Hygeia, The Health Magazine* for May.

"Using a wool measuring device developed by J. I. Hardy of the United States Department of Agriculture, Steggerda and Mrs. Eckardt are able for the first time to determine quickly and adequately the size pattern of the hairs on anybody's head," Mr. Winters explains.

THE TREATMENT AND CARE OF COMMON EYE INJURIES

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Every physician should be able to render first aid, if not treatment, for the most common types of eye injuries. In many instances he may find it impossible to refer the patient to an eye specialist, and must therefore assume full responsibility himself and render the best service possible.

In order that we might better discuss methods of treatment, let us first review briefly the anatomy of the eyeball.

The conjunctiva is a mucous membrane forming a sac and lining the inner surface of the lids and the anterior surface of the eyeball. It forms the outermost layer of the cornea; namely, the epithelial layer.

The cornea and sclera form the outer fibrous coat of the eye. The cornea is the anterior portion which is composed of connective tissue stroma with its lamellae arranged in parallel rows, thus accounting for its transparency. Its radius of curvature is less than that of the sclera, and it is inserted into the sclera as a crystal into a watch. The sclera is a tough white coat, made up of bundles of connective tissue fibers which run in different directions. This renders it far more resistant and gives it an opaque white appearance.

If the cornea and sclera are removed, we see the iris, ciliary body, and choroid, which are dark brown in color because of their pigment. They form a continuous coat, spherical in shape, with two openings, one in front called the pupil, and one behind for the entrance of the optic nerve. The iris, ciliary body, and choroid are referred to as the uvea, because of the similarity to a grape hanging on a stem (the optic nerve).

Lying just inside the choroid is a thin coat, which we call the retina. It is attached in front, just behind the ciliary body, and in back, at the optic nerve. It is held in position by the pressure of the gelatinous substance which we call the

vitreous. Suspended just in front of the vitreous is the lens.

The eye, in its reactions, might be compared to a baby, in that it is very sensitive, and responds quickly to injuries. It may be either lost or saved by proper care, rendered early.

As a general rule, in the early stages of contusions and inflammations, cold compresses are advisable, and later hot ones. An exception to this is acute iritis, for which we always use hot compresses from the beginning.

Lid injuries must be given very careful attention, because notching of the margins may occur, producing disfigurement as well as severe irritation to the eye from distorted cilia (eyelashes). The cosmetic result of injuries must likewise be considered. Wounds or lacerations must be closed so that no gaping is allowed. To accomplish this it is necessary to use fine silk sutures placed very close together. Burns very often cause severe deformities requiring plastic surgery by the ophthalmic surgeon.

Chemical burns may be due to acids, alkalis or caustics. One of the commonest and most serious is that produced by lime. When first seen the eye should be irrigated thoroughly with warm water or boric acid solution, to remove all particles of plaster which might be present. If possible, 1 per cent holocain solution, $\frac{1}{2}$ per cent pontocaine, 2 per cent butyn, or 4 per cent cocaine should be instilled, to relieve pain, and also to allow a better inspection of the eye. In all cases the upper lid should be everted to inspect the upper culdesac, because it may contain some of the lime, which if left will produce further damage. It is not advisable to try to neutralize an acid burn by instilling an alkali; or vice-versa. The damage has already been done. In phenol or iodine burns, alcohol may be applied to the burned area, if seen immediately. Otherwise it should not be used.

Provided the intra-ocular tension is normal, 1 per cent atropine solution should be instilled, and the eye filled with 1 per cent holocain ointment or 2 per cent butyn ointment, and then a patch applied to keep it closed. Castor oil, vaseline or boric ointment may be used if the holocain or butyn

ointments are not available. Holocain acts as an analgesic, and is said to aid in the regeneration of the corneal epithelium; whereas, cocaine tends to destroy it. The ointment should be used at frequent intervals, to prevent adhesions from forming, and also to relieve pain. The eye should be kept tightly closed with a patch because of the corneal abrasion. Movement of the lids prevents or delays healing, and in addition produces severe pain. If there is any swelling of the lids, cold compresses may be used.

To determine the part of the conjunctiva or cornea burned, a drop of 3 per cent fluorescein solution, or 1 per cent mercurochrome, will stain the abraded area. The fluorescein stains it a bright green. It is possible in this manner to keep up with the progress of the condition, because it is much easier to see the injured area. When healing is complete, instillations of a solution containing $\frac{1}{2}$ grain of zinc sulphate and 15 grains of boric acid to the ounce of water may be used several times a day, for a week or two.

The cornea is perhaps most often injured by small foreign bodies. The epithelium is very easily abraded, and if so it causes severe pain and the sensation of a foreign body being present. The abrasions are often very difficult to see, but staining renders them easily visible. When a foreign body is embedded in the cornea, it is useless and harmful to attempt to wipe it off. This will only abrade the epithelium and invite infection and ulceration.

A good light and a condensing lens are essential for examination of the cornea. If possible, one should also have a magnifying glass. The cornea can be anesthetized by instilling a few drops of $\frac{1}{2}$ per cent solution of pontocaine or 1 per cent solution of holocain into the eye. Four per cent cocaine may be used but the objection to this is that it may cause desquamation of the epithelium and predispose a corneal ulcer. It also has the disadvantage of dilating the pupil. I have found that the addition of a few drops of epinephrine to pontocaine solution lessens the allergic reactions sometimes produced by protocaine.

It is best to stand behind the patient,

focusing the light on the cornea with a condensing lens. The patient should keep both eyes open wide and look at a definite object in front of him in order to keep his eyes still.

A number of instruments have been designed for the removal of foreign bodies from the cornea, but none of them is entirely satisfactory for all cases. A small spud and a corneal curette or burr are probably the most useful.

In the case of emery particles which break up when manipulated the curette or burr is helpful. Metal foreign bodies frequently leave rust stains. These are sometimes very difficult to remove, and if one is not careful the cornea may be penetrated. These are best removed with a small burr.

After the removal of the foreign body the conjunctiva of the lower lid is touched with some 1 per cent silver nitrate solution on a tooth pick applicator of tightly wound cotton. Vaseline or boric ointment is then put into the conjunctival sac, and an eye patch applied for 24 hours, at the end of which time most minor injuries will be entirely healed. It is not necessary to instill atropine unless considerable corneal or iritic irritation is present, because this is not without danger and its effects last for a week or ten days.

Powder burns may be treated in the same manner as other foreign bodies; however, only a few of the particles should be removed at a time. Tetanus antitoxin should be given in all cases of powder burns.

Ulcers of the cornea may develop following foreign bodies, especially if they have remained in the eye longer than one or two days. If pus develops in the anterior chamber, it is a very serious condition, and the patient should be referred immediately to an oculist. If this is impossible, the ulcer should be cauterized with iodine, or preferably with 95 per cent phenol, followed by alcohol. Foreign proteins should be given. These may be given in the form of omnadin, boiled milk, or typhoid vaccine intravenously, as well as large doses of sulfathiazole.

Perforating wounds of the cornea require treatment according to the location and ex-

tent. If the iris is caught in the wound, it should be freed if possible; if protruding, excised, atropine instilled, and a patch applied. Foreign protein injections and sulfathiazole should be given to prevent serious infection. If the lens is injured, a cataract develops. Too rapid swelling of the cataractous lens may give rise to a secondary glaucoma. Secondary glaucoma may also develop due to a dislocated lens, or to an intraocular hemorrhage, following blunt injuries. These patients should be seen by an oculist.

Steel slivers may enter the eye, producing very little pain. If suspected, the eye should be x-rayed; and if present, the foreign body should be localized and removed with a magnet. Nonmagnetic intra-ocular foreign bodies such as copper and brass are dangerous and cannot often be removed. It is generally advisable to remove such an eye, to prevent sympathetic disease from developing in the other eye. Foreign bodies in the orbit may not give rise to any symptoms, and in that case are best left alone.

Scleral wounds near the cornea are dangerous, because they may involve the ciliary body. This is called the danger zone, because injuries here may produce sympathetic ophthalmia. After sympathetic disease develops it is too late to remove the injured eye. Symptoms of sympathetic ophthalmia are variable and unreliable. Beginning softness, a red inflamed and irritable eye, exudate in the pupillary area and deposits on the posterior surface of the cornea with diminution of vision are very suggestive. The other eye first becomes irritated and sensitive to light, and then undergoes the same changes as the exciting eye. The cause of sympathetic ophthalmia is unknown, as is the way in which it extends to the opposite eye. Unfortunately, we can never say whether an injured eye will produce a sympathetic ophthalmia or not; and the oculist must use his judgment and experience to determine the advisability of removing such an eye. Sympathetic disease may begin within a few days after an injury, or it may begin as long as forty years

afterwards. Any degenerated blind eye which becomes inflamed and painful at times should be removed.

Electric ophthalmia occurs as the result of exposure to bright lights or to ultra violet rays. It produces very severe pain, blepharospasm and photophobia. These symptoms usually occur several hours after the exposure. Ice compresses, adrenalin instillations, and holcaine pontocaine or butyn ointment give relief.

Treatment of sympathetic ophthalmia seems to be futile. Remissions often occur, thus accounting for so-called cures; but there is no evidence, so far as my information goes, that a true case has ever been cured. Hot applications and atropine, along with injections of foreign proteins, are generally used. Good results have been claimed from the use of large doses of salicylates and arsphenamine.

I wish to take this opportunity to condemn the promiscuous use of atropine. It is possibly the most valuable drug, used judiciously, in ophthalmologic practice, but also the most dangerous if used unwisely. It has caused many cases of potential glaucoma to flare up into acute attacks. It should never be used to dilate the pupils for an ophthalmoscopic examination. In patients over forty years of age, it must be used very cautiously. The effects of atropine last for a week or longer. Unfortunately, some regard atropine as a panacea for all eye ailments.

Conclusions

The treatment of eye injuries is similar to treatment of injuries elsewhere in the body, but we must keep in mind that we are dealing with very delicate structures. With a knowledge of the anatomy of the eye, we are far more able to treat them intelligently and to distinguish between minor and severe injuries. In case of doubt, the patient should be referred to an oculist.

I wish to express my sincerest thanks and appreciation to Dr. Algernon B. Reese of New York City for the slides shown.

The increased incidence of industrial dermatoses due to exposure to various industrial irritations on the part of large numbers of persons is constituting a national problem.

OSTEOMYELITIS OF THE FRONTAL BONE

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As was announced, the subject of this paper is "Osteomyelitis of the Frontal Bone." It is an active infection invading the frontal bone outside the confines of the frontal sinus. The causes of this are first and foremost an active sinusitis. The next is sustained injury to the frontal sinus, and lastly, frontal chronic sinusitis, which is extremely rare. What happens is: first, the mucous membrane becomes infected, next the blood vessels connecting the frontal sinus with the blood lake up high in the corneal site are filled with septic combine, and finally is the bone. Both tables are infected but usually the inner table more.

(SLIDE) This is a picture of a head showing particularly the frontal bone and area of a little part of the frontal bone almost entirely decalcified and there is one large sequestrum. In this particular instance, however, the patient was not as sick as many others. The pus came to the outside and formed a subperiosteal abscess.

(SLIDE) Section of the frontal bone showing a large sequestrum removed from a patient in whom we attempted to go around the bone. What we always try to do is take part of the good bone and not get into the infected bone at all. In this case, as so frequently happens, the osteomyelitis infection went to the inside. Turn it over and there is an epidural abscess. The bone is lifted from the dura. An ounce of pus ran out and an area of granulation was seen. It looked like good bone around the edge. X-ray film showed actually only a small amount of good bone around the large sequestrum decalcified, and it was holding a large abscess.

(SLIDE) These are pictures of the patient's head taken five days after operation. The patient was in such bad condition at the time of operation, we did not care to prolong the operation time by taking photographs. Five days later the first dressing was removed with the head forward. This is the left frontal bone and you can see the large area of granulating mass which was under the epidural abscess. In the treatment of brain abscess operation is done in two stages. In the first operation we open the brain abscess and pack it with gauze. With this idea, we want the brain abscess turned inside out and do not try to remove it at that time. The brain abscess is herniated out through the bony defects.

(SLIDE) Another patient with a brain abscess ruptured in the brain. There was such pressure that the dura was

pressed up. This was taken some weeks after the original operation and the herniation of the brain abscess as it came out was about twice the size as seen now. It was never removed. It subsided after the acute infection and the patient survived the infection.

(SLIDE) Subdural abscess is a great killer. When one develops from osteomyelitis, the patient does not recover. We have not been able to find a treatment by which they later recover. This slide is from the autopsy, looking at the front of the left cerebrum, which is white. The other has some color. When the dura was split open, there was a massive amount of pus which covered the left cerebral hemisphere. When the dura was removed, the pus ran out on the autopsy table. The white blood count was ten to fifteen thousand. The patient developed meningitis. X-ray showed decalcification. One way to judge this condition is, first, loss of weight. The white line is superior at union of front and back plates, frontal section, which causes sinus to simulate normal appearance but less opaque. Later there is mottling of the frontal bone indicating sequestration. As the disease progresses, the patient has intolerable headache, degrees of stiff neck.

(SLIDE) This is a case of frontal sinusitis. We first disturbed this area thinking it might be an osteomyelitis. Notice carefully and you will see the front line of the frontal sinus is intact and we decided that this was simply a case of acute right sinusitis. Not so, however, in this case. The superior white line of the right sinus is intact but the left superior white line is almost entirely gone.

(SLIDE) This is an area of osteomyelitis leading up toward the corneal site. In fact, this is one of our earliest pictures of osteomyelitis of the frontal bone. In all of our patients that developed complications, the bacterium has been streptococcus.

Treatment

First is medical treatment, which may be lifesaving. Insist on removing all infected bone at once. Apply sulfathiazole. Leave the incision open if more bone is involved; that is, if the patient has complications.

Secondary treatment consists of meningitis, brain abscess, osteomyelitis.

(SLIDE) This patient is face forward and on his cot in the back yard. This indicates the time the treatment was instituted, beginning by trying to remove all infected bone. The picture was taken five days after operation. The towel is removed. The bone edges should be smooth. We found the moth-eaten, rat-eaten appearance of bone particularly noticeable in the lateral bone. Four weeks later when we took a second picture the bone edges were perfectly clean and the patient was clear of osteomyelitis.

Repair consists of complication entirely healed. Skin flaps are sutured into position. The patient is either well or not well and, if he is satisfied, he may go home with a soft place in his head. If he wishes to have the defect corrected, it can be done by autogenous vitallium plate.

(SLIDE) This shows a patient who has had a massive

osteomyelitis of the frontal bone. This indicates the bone edges. X-ray examination showed no spread of the osteomyelitis. He is now ready for repair which consists of resecting the skin edges and suturing them back in position. Note the epithelial growth on the dura. Sixteen days after the picture you have just seen was made we took another picture because we operated on the patient the following day and dissected up and filled in with sulfathiazole, and this particular patient was satisfied and didn't care to have anything else done.

With minor defects from the small amount of bone removed, we used cadaver cartilage, taking it from a patient killed in an accident. We put it in and gave him a smooth forehead. It is all right except a piece of cartilage never takes, but the forehead continues to pulsate. With defects as great as this we use autogenous bone graft, taking them from the tibia of the left leg. This also gives a very smooth edge. Where the tibial bone and the frontal bone touch, it is a little rough but it smooths out as soon as the bone graft takes.

(SLIDE) A man as large as this man usually has a large frontal sinus and the defect is massive and is a problem to correct. There is a very deep hole where the frontal sinus was removed. We have hopes that vitallium might be the answer to that. In order to obliterate the space we take a fat graft. It fills the depression to level with each side of the forehead, following which we have a plate made by a plaster mold and then have a vitallium plate made at the Osnell Laboratories and put it into the bone, and it is screwed down using a small drill to put in the screws. It brings the forehead to normal contour. He has not had time to have hair regrowth. You cannot bend the vitallium.

In our series we have had four epidural conditions, three epidural abscesses alone, two subdural abscesses, one subperiosteum, only three cases where osteomyelitis was the prominent factor. Our mortality rate has been two cases out of ten. One ceased to breathe on admission to hospital but kept alive 18 hours in an iron lung. The second died after admission but before examination. Postmortem was done on both.

OSTEOMYELITIS OF THE FRONTAL BONE

Definition

1. Actual, active infection invading frontal bone outside confines of frontal sinus.

Causes

1. Acute frontal sinusitis.
2. Trauma.
 - a. Operation.
 - b. Injury.
3. Chronic frontal sinusitis (rarely).

What Happens

1. Mucous membrane of frontal sinus becomes infected.
2. Blood vessels from mucous membrane into bone fill with septic thrombi.
3. Blood vessels of diploe connecting frontal sinus with blood lakes of frontal bone close to coronal suture fill with septic thrombi.

4. Involved bone decalcifies, dies, sequestrates. Both tables affected; usually inner table more.

Complications

1. Epidural abscess.
2. Brain abscess.
3. Meningitis.
4. Subdural abscess.
5. Subperiosteal abscess.

Diagnosis

Recent or present acute frontal sinusitis.

Swelling of skin of forehead from brow toward hairline. Headache; frontal and vertical, less frequently occipital.

Temperature: low grade after acute sinusitis; higher with subperiosteal abscess.

Blood count: 10,000 to 15,000 W.B.C.

Spinal fluid: according to complication, ranges from normal while infection is in the bone to many thousand leukocytes on development of meningitis.

X-ray: decalcification. First, loss of "white line" (superior union of front and back walls of frontal sinus). Next, decalcification of sinus plates causing sinus to simulate normal by appearing less opaque. Lastly, mottling of frontal bone indicating sequestration.

As disease progresses and complications occur

Intolerable headache

Varied degrees of stiff neck

Semicoma; mild delirium

Choked discs

Bacteriology: Staphylococcus

Treatment

A. The Immediate Treatment

Surgical. Remove all infected bone at once. Apply sulfa drug. Sulfathiazole used here. Leave incisions open if more than bone involved.

B. The Secondary Treatment

Treatment of complications as meningitis, brain abscess, or spread of the osteomyelitis.

Repair

Infection and complication must be healed. Skin flaps dissected up and sutured into apposition.

Elective repair of defect

Cadaver cartilage

Autogenous bone graft

Vitallium plate

This Series

Total cases	10
Epidural and brain abscess.....	4
Epidural abscess	3
Subdural abscess	2
Subperiosteal abscess	3
In the 10 cases, meningitis a prominent factor in....	1

Mortality

Two cases. Both subdural abscess.

One—Ceased to breathe on admission to hospital. Kept alive in iron lung 18 hours without voluntary respiration.

Two—Died suddenly in hospital soon after admission, before examination. Post-mortem examination on both.

LARYNGECTOMY FOR CARCINOMA

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Because of the limitation of time, we shall start immediately with a colored moving picture showing the total removal of a carcinomatous larynx.

The presenting symptom of hoarseness lasting more than three weeks and unattended by extra laryngeal signs or symptoms, should be regarded as carcinoma of the larynx until proved otherwise. Ordinary hoarseness caused by simple laryngitis should clear up in a couple of weeks. If it persists longer than this period the patient should be referred to a laryngologist for examination.

The other two common causes of hoarseness are tuberculosis and syphilis. Laryngeal tuberculosis in the vast majority of cases is secondary to an advanced pulmonary lesion. Positive serologic tests and trial therapeutics are reliable guides to the diagnosis of syphilis.

Surgery of the larynx varies with the location and stage of the lesion. If early and intrinsic, intralaryngeal procedure such as cordectomy through the suspension apparatus or laryngofissure is satisfactory. More advanced intrinsic and early extrinsic lesions require complete laryngectomy.

Total laryngectomy was first done in this country in New York by Dr. John Edmund MacKenty. Various men have modified the original operation. Some men prefer to do them in two stages. First a tracheotomy is performed and in a few days the complete operation is carried out.

We use sodium pentothal as an anesthetic. The tongue must be kept free and oxygen constantly administered. We have had no complications with this anesthetic.

X-ray plays a distinct part in the treatment of laryngeal carcinoma. The era of x-ray and radium for the treatment of in-

*In active military service.
Read before the Medical Association of Georgia, Augusta,
April 30, 1942.

operable carcinoma only is over. We have found that the use of both x-ray and surgery is advantageous. It is much better to remove the larynx first, if possible, before the administration of x-ray, because of post-radiation adhesions.

We always use x-ray after total laryngectomy. In other parts of the country, however, a sharp division is made between the cases suitable for x-ray and those patients who are candidates for surgery. Combined therapy is not attempted.

This picture shows the incision into the trachea, separating larynx from tracheal stump, and you see the danger of excessive bleeding and the liability of aspirating blood into the trachea. We dissect the trachea away from the esophagus posteriorly from below upwards.

When the operation was first devised it was found that the act of swallowing did not allow the structures sufficient time to heal. Rectal and intravenous feeding were found unsatisfactory because sufficient calories could not be given to keep up the patient's nutrition. Now a nasal tube is placed in the esophagus; one is not dependent on deglutition and the body weight can be stabilized.

Sulfathiazole is put into the wound in large amounts. With this drug placed in the wound much less drainage is noted. Note the oxygen tube leading into the tracheal stump. Now you see the structures being brought together. Note the interrupted sutures. One break in a continuous suture would leave the wound wide open. To further insure healing, the patient is taught to expectorate the secretions from the mouth and nose, thereby obviating deglutition with its strain on the sutures.

Sodium pentothal at this point is discontinued and the operation is finished under novocaine infiltration. Novocaine diminishes bleeding and reduces the required amount of sodium pentothal. Incidentally, the longer sodium pentothal is given during an operation, the smaller is the amount necessary to keep the patient at a constant plane of anesthesia.

As far as voice rehabilitation is concerned, some of these patients use an artificial larynx and some of them have learned to swallow air and to use the muscles of the

tongue, lips, throat, and diaphragm to produce a fairly good voice. These so-called esophageal voices are particularly valuable right now because the war has stopped the manufacture of artificial larynges.

The larynx is shown and the marked edema of the involved side noted. The extensive carcinomatous process is easily visible. Dr. Kracke, pathologist, classified this growth as Grade II, Broders.

With the growth as extensive as this, no intralaryngeal operation is of the slightest value because you will have recurrences unless the total larynx is removed; even then there is always the possibility of a recurrence. All of us have seen the fallacy of the so-called five-year cures.

The patient is presented thirteen months after the operation. His tracheal stump is pointed out. He is entirely dependent on air for life at this point.

Ponce de Leon Eye and Ear Infirmary

DISCUSSION ON PAPERS OF DOCTORS LEWIS, HALLUM,
MARTIN, BROWN, EQUEN-NEUFFER-MATTHEWS-
OGDEN

Dr. Alston Callahan (Atlanta): I want to express my appreciation to Dr. Martin for his paper.

Let me have those slides, please. I want to show you two pictures.

(SLIDE) This is laceration of the cornea. Notice the prolapse of the iris there which has been removed and this nicked the anterior capsule of the lens. The patient, however, did not develop but a slight opacity and one year later had a vision of 20/60 corrected in this eye.

(SLIDE) This picture shows laceration of the eye prolapsed and recovered with a conjunctival flap, a picture taken six months later. He still has a vision of 20/50.

Dr. B. H. Minchew (Waycross): I was glad to hear Doctor Martin's fine paper. Removal of foreign bodies is a very important thing in the practice of everyone. It is quite easy to remove a foreign body and then permit the patient to do a lot of damage afterwards.

Every eye from which a foreign body has been removed from the cornea should be covered for at least 12 or 24 hours. If not, the patient will insist on having others probe about, under the impression that there is still a foreign body present because of the pain when the lids carry across the front surface of the eye in the natural process of lubrication. It is dangerous to have cocaine preparations used by the patient after the removal of foreign body. The preparations desquamate the corneal surface and frequently cause a great deal of harm.

It is easy to be deceived with the brownish pigment on the iris with poor lighting facilities, with the thought of foreign body on the corneal surface. It is well to

stain with weak solution of mercurochrome and in this way the foreign body will show red and can be easily removed.

The patient with a foreign body penetrating the globe should be sent immediately to a competent ophthalmologist and if the missile producing the injury is metal, a relative piece of metal should be sent with the patient to determine its character and whether it is subject to magnetic attraction. In this way much valuable time can be saved in the manner of treatment employed. Atropine dropped in the eye and a snug dressing should be done before sending the patient away.

Dr. H. M. Lokey (Atlanta): This is quite an interesting symposium, and there is a great deal to be said in the discussion of it.

I wanted to ask Dr. Lewis, in regard to his patient, if those nodules we saw on the forehead were varicose veins or keloid, or what, and if veins, to just what is the enlargement due?

In regard to Dr. Martin's paper: It must be borne in mind by anyone doing eye surgery, especially those doing industrial surgery, that we have eye injuries in all forms of industry, and that every general practitioner has to do work of that sort: he should, therefore, become accustomed to the care of eye injuries.

One of the difficulties I have had in doing work for the railroads and other industries is to prevent the attempted removal of foreign bodies from the eye by laymen. I have seen a number of cases that were infected by this meddling. I have a case now that I think will lose an eye, due to attempts of another employee to remove a foreign body from the cornea. In discussing this with the foreman two weeks ago, I was told by him that if they sent every person who had a foreign body in the eye to an oculist, too much time would be lost from the shops or yards. It might be all right if employees confined their efforts to foreign bodies in the conjunctiva, but it is dangerous to tamper with those embedded in the cornea. So often a knife is used; I know one employee in a railroad shop who has an instrument that he made himself, with which he attempts to remove foreign bodies from the cornea. Frequently there are resulting infections, and when the patient comes to you, he has a beginning ulceration surrounding the point of injury, and in some cases, these injuries develop seriously. In the case that I speak of, the employee had a laceration of the corneal tissue, the foreign body was embedded in slough of the cornea, and there was extensive ulceration. I did a microscopic examination from the scrapings of the corneal ulceration and found a staphylococcal infection. I used staphylococcal antigen and every other known antiseptic, finally resorting to sulfathiazole locally and internally; x-ray therapy was used—all with no beneficial result. I am now trying intravenous typhoid vaccine, and hope to get good results from that. However, if this has no benefit, this patient will probably lose his eye. Those are the things you must guard against in doing industrial eye work.

Another thing occasionally seen is an employee who has been seen for a foreign body, there is an abrasion on the cornea or orbital conjunctiva, but no foreign body is found. Local treatment is given, yet the patient

continues to complain. X-ray examinations on three such cases that I recall showed foreign bodies inside the globes. One case was under treatment about ten months, iritis had developed, the vision gradually failed; when the patient came to me, he was being treated for luetic iritis. An x-ray picture showed a small piece of wire in the globe. Section of the globe, after it was removed, revealed a piece of copper wire, no larger than a hair. The patient's original history was that he had gotten a piece of copper wire into his eye from the brushes of a generator on which he was working.

If your eye injury case does not respond to treatment, and no foreign body is found, by all means have an x-ray picture made to determine that there is no foreign body within the globe.

Dr. Linton Smith (Atlanta): Few of us realize the technical difficulties in diagnosis, at operation and in the management and after treatment of patients operated on for cancer of the larynx. It has been my pleasure to observe a number of patients on whom Dr. Eguen had operated, and the rehabilitation that he has accomplished has really been surprising.

Carcinoma of the larynx metastasizes quite late for obvious reasons and, although many of these cases are seen after the disease has existed for a long time, the well equipped and highly trained specialist, who usually is the one who diagnoses them, has lowered the mortality following the operation and has no less decreased the morbidity. The decrease in mortality is of course the matter of greater importance but the lessening of disability after operation and the restoration of the individual to his place in the community is of little less importance, and Dr. Eguen's results in both phases have been little less than spectacular.

Hertzler emphasizes the fact that the first lesson that the young surgeon learns in doing a thyroidectomy is the "extreme vascularity" of the area involved. I am sure that he must never have done a laryngectomy, or he would have used that for an illustration, for there is all of the vascularity of the thyroid multiplied many times and hemorrhage is not the only problem in these cases. It is not my intention to enter into a discussion of the technical difficulties of this operation, although they are many, varied and often unpredictable; but I wish to emphasize particularly the rehabilitation of these unfortunates.

Formerly the laryngectomized individual, if he survived the operation, was doomed to a life largely to himself, unable to communicate freely with others, a life much apart from his kind, with all of the psychic angles that often develop in such cases; but with the improved technic of operation, which gives so much better cosmetic results, the highly developed and perfected post-operative care and the later education in the use of one of the artificial aids to speech, these people are able to become active in the community again and not only productive but often more than self-supporting. One man on whom I did a total laryngectomy was able to resume his work as a general contractor and laid the foundation for one of our most important fortifications on which we are depending today to keep the enemy from our gates, and he made a business success comparable with his efforts and results before his illness.

A great deal depends on how early in the course of the disease these cases are seen and properly diagnosed. Usually prolonged hoarseness is caused by tuberculosis, syphilis or neoplasms, either benign or malignant, and which of these three may be the cause of the hoarseness is of the utmost importance. Anything except a transitory hoarseness should arouse suspicion, and time is of more importance in few other conditions. The treatment is entirely different in these three conditions and the mortality and morbidity are largely controlled by the time element. A proper diagnosis and an early one are absolutely essential for the relief and cure of these afflicted individuals and the only way to insure such is to send the patient to one who is peculiarly equipped and trained to make a proper differential diagnosis. There are, of course, patients in whom there is no doubt as to the diagnosis of tuberculosis or syphilis of the throat, and these cases should be treated accordingly, but where there is any doubt the patient should be given the benefit of a skilled consultant.

Dr. Alton V. Hallum (Closing): I would like to emphasize that this is an old operation that has been slow in gaining popularity. The technic as shown in the movie is a slight modification of the original operation as described by Toti, an Italian rhinologist, in 1904.

Most literature concerning it, as you know, has been during the past five or ten years, particularly in the English literature. In our own country Chandler, Rycheuer, Stokes, Hughes, Guy, Bogart, and others, in the past few years have reported highly successful results in large series of operations for relief of stenosis of the lacrimal sac by some form of dacryocystorhinostomy. The technic shown in the movie gives most highly successful results. Make bony window as far down and forward as possible.

The only contraindication to the operation is malignancy or tuberculosis of the sac. Both conditions are extremely rare. I have seen only one malignancy of the sac and not a single tuberculous sac.

We have done twelve dacryocystorhinostomies, all in the last two years. I am having trouble with the last case which I did about a month ago. I learned something in the last two cases concerning the intranasal possibility of failure. I found at the end of these two operations that the anterior tip of the middle turbinate had a tendency to block the new opening into the nose and should have been removed at that time. In these cases the tip of the middle turbinate, and granulation tissue in the nasal opening of the new drainage tract were removed a week later by Dr. Wm. B. Armstrong.

The operation is indicated in all ages except infants, and stenosis in newborn babies usually opens if aided by external massage. If that fails in a year or so, a probe passed through the sac will usually establish drainage. Before operating on any stenosed sac, an attempt should be made to pass a probe through the sac into the nose. If it can be done, sometimes you can establish drainage without an operation. However, if two or three probings do not establish drainage, some form of plastic operation should be done.

The surgeon should feel it his moral obligation to re-establish intranasal drainage. If you have a patient with stenosis of the lacrimal sac, a plastic operation

should be done rather than removal of the sac, because if you remove the sac, you subject the patient to a life-time of lachrimation with its resulting impaired vision and discomfort. The surgeon who removes a stenosed lacrimal sac instead of doing a plastic operation to re-establish intranasal drainage, should consider himself to be suffering from inertia or ignorance, or both!

Dr. Murdock Equen (Closing): I might answer Dr. Smith's question in regard to the large amounts of sulfathiazole put in the wound. In yesterday's paper, Dr. Long mentioned the fact that sulfathiazole may become organized and leave an ugly wound. That is hardly possible in a laryngectomy because with the excessive bleeding, an unusual amount of sulfathiazole would probably be washed out of the wound through the drainage.

In regard to the discussion on Dr. Brown's paper and the slides shown, there is nothing adequate to take the place of regular surgery. It is like a barrage laid down for the advancing infantry: it takes care of the folks who are approaching. So if we can eliminate infection in the frontal sinus, we can stop having to do a more serious operation on the frontal bone itself.

HIRSCHSPRUNG'S DISEASE

Report of Cases

CHAS. H. WATT, M.D.
Thomasville

Although the treatment of this condition is largely surgical, a discussion of the subject of Hirschsprung's disease should be of general interest in a meeting of this nature due to the fact that these cases are usually seen by the obstetrician, pediatrician and internist before reaching the surgeon.

Although cases of congenitally enlarged colon were noted and discussed over a century ago, it was not until 1886, when Hirschsprung fully described the disease, that it began to receive its merited attention.

The etiology of this disease remains in doubt although a review of the literature contains considerable evidence in support of a defective sympathetic nerve supply to that part of the colon involved.

The colon in cases of congenital idiopathic dilatation (Hirschsprung's disease) may be many times normal size, involving the entire colon, appendix and sometimes the rectum. But the sigmoid alone, according to Mummery, quoted by Gant,¹ is in

¹Read before the Second District Medical Society, Thomasville, Oct. 8, 1942.

volved in 51 per cent of the cases. Pathologically, the involved gut is not only larger but also longer than the normal and the wall is thick and leathery, but the mucosa usually does not undergo hypertrophy.

Clinically this disease is not usually difficult to recognize. The history reveals the fact that the patient has suffered from constipation since infancy. In some instances the period between bowel movements may be as long as six weeks. In extreme cases there is marked distention of the abdomen while the rest of the body shows emaciation. Associated with this picture there is usually a flaring out of the ribs, evidence of prolonged distention, respiratory and circulatory embarrassment. General weakness, lassitude and foul breath complete the picture.

In less extreme cases the patient may enjoy periods of normal activity and comfort alternating with periods of abdominal discomfort, associated with nausea and vomiting, and increased abdominal distention. Such attacks may be mistaken for acute intestinal obstruction.

Physical examination reveals varying degrees of abdominal distention according to the severity of the disease. In mild cases there may be no evidence of malnutrition and if the patient is seen at certain times; for instance, soon after an evacuation, the disease may not be suspected except from the history. In such cases a barium enema and x-ray examination will clarify the diagnosis. In more pronounced cases there is evidence of malnutrition associated with an enlarged abdomen over which the skin is tense and the blood vessels prominent. Usually intestinal patterns and peristaltic waves are readily seen. Large tumors may sometimes be evident due to impacted fecal masses.

The treatment of these patients is largely surgical although some of the milder ones may live a reasonably active and useful life under careful regimen which consists of strict attention to the diet, the frequent use of mineral oil, or laxatives, and enemas. The drugs that influence the parasympathetic system have been disappointing.

The surgical procedures most commonly employed are (1) cecostomy or appendo-



Fig. 1. Case 1.
Barium enema showing large fecal mass in the sigmoid which fills almost the entire abdomen.

costomy; (2) sympathectomy; and (3) colectomy, total or partial.

Cecostomy. Ladd and Gross² have employed this procedure in several cases as a temporary measure and were gratified with their patients' behavior following closure of the stoma. As a rule, the procedure is adopted in more or less acute cases to relieve back pressure and may be a lifesaving step.

Sympathectomy. These same writers feel that this is a valuable procedure in properly selected cases; that is, early mild ones, and that some of the disappointing results have been due to poorly selected cases. They emphasize the value of a preliminary study of these cases under spinal anaesthesia. If the colon tends to empty itself while under spinal anaesthesia, then, according to them, one may reasonably expect some improvement from a sympathectomy, either unilateral or bilateral as the case may be.

Colectomy. As mentioned, about 50 per cent of these cases are local in character. Where the condition is limited to the sigmoid local excision, preferably by a two stage procedure, should be done bearing in mind, however, the fact that other sections of the bowel may later become involved.



Fig. 2. Case 1.
Lateral view showing fecal mass and fluid level in the bowel.

Total colectomy is a formidable procedure in these cases and should perhaps not be done except as a last resort, when all other measures have failed to bring relief. The three cases reported by Ladd and Gross³ all terminated fatally, two soon after operation and the third one year later. These authors rather pessimistically remark "Indeed it is almost impossible to obtain a complete cure in any of these children."

Despite these discouraging reports from men who have had an extensive experience in children suffering from this disease it behooves us to continue to try to bring these sufferers relief, if not a cure. In my limited experience I hesitate to burden you with these case reports but they have been instructive to me and I think have taught me a few "don'ts." However, they are such treacherous cases to handle that I may be fooling myself and should I be called upon to treat another, no matter what procedure I decide upon, may wish I had done otherwise.

Report of Cases

Case 1. The first case is that of a white boy, aged 11 years, admitted to the hospital Jan. 9, 1936. He was next to the youngest in a family of seven children and had suffered from stomach trouble and constipation all his life. One month before admission a lump appeared in his abdomen and continued to grow. No pain. Obstinate constipation. Last summer had an attack of nausea



Fig. 3. Case 1.
Barium enema six weeks after resection of sigmoid.

and vomiting. Normal boy in his activities. Weight on admission 67 pounds.

Examination. Young white male, alert and bright. Underweight but not emaciated. Abdomen enlarged by a tumor, filling it almost entirely. This had a firm, pasty feel but was not tender. Could not be moved around very much because of its size but had moderate degree of mobility in all directions. X-ray showed this to be a large fecal mass in the sigmoid. Note fig. 1 and 2.

Diagnosis. Hirschsprung's disease (segmental).

Treatment. Jan. 14, 1936, resection of the sigmoid which contained a large fecal mass, by Rankin's obstructive resection method, this being the first stage. February 11 the colostomy was closed. February 23 the wound being completely and solidly healed, the patient was dismissed from the hospital and was having two and three voluntary stools daily. Fig 3 shows the appearance of the colon following resection of the sigmoid.

Subsequent course. This case was followed closely for two years during which time he continued in good health with normal growth and development. Dr. Ellis, who is here today, from this boy's home town, says the boy is playing football and now weighs 150 pounds.

Case 2. White male, aged 26, admitted to hospital July 19, 1935, complaining of soreness in lower abdomen, constipation and fever. The patient gave a history of constipation since infancy and stated that at the age of four he was operated upon and the small bowel anastomosed to the large bowel (ileo-sigmoidostomy).

Examination. Young white male, acutely ill with temperature 101°, pulse 100. The abdomen was markedly distended with intestinal patterns and peristaltic waves were visible over it. W.B.C. 24,000 with 75 per cent polys; 81 per cent hemoglobin.

The patient stated that he had suffered similar attacks before but they seemed to be getting more severe.



Fig. 4. Case 2.

Roentgenogram showing marked distention of small and large bowels.

Hot stupes to the abdomen and colonic irrigations brought relief from this attack and he was dismissed from the hospital four days after admission.

Second admission Sept. 16, 1936. The history of this admission was rather like the former except this time there was nausea with vomiting, and no fever. Had been suffering for three days prior to admission; stupes and colonic irrigations failed to bring relief this time.

Examination again showed marked distention of the abdomen with visible peristaltic waves but these seemed to involve the small bowel rather than the large (fig. 4).

The patient was again treated medically with some relief but not as complete as before. The persistent small bowel distention led to the belief that the stoma between the ileum and sigmoid was insufficient. On October 6 an exploratory laparotomy was performed at which this stoma was enlarged by a procedure similar to a Finney pyloroplasty. Improvement was gradual but not startling. He was dismissed as improved October 30, but was still unable to have a voluntary bowel movement. Accordingly he was advised that a colectomy would be his only relief.

Third admission was on Nov. 10, 1936. The first stage of the colectomy was done. The resection was started in the sigmoid just above the old anastomosis of the terminal ileum to the sigmoid: here the bowel was severed, the lower segment being inverted and closed off after which the descending colon and about one-half of the transverse colon were removed. At this stage the patient's pulse became quite rapid so the operation was terminated and the proximal end of the remaining transverse colon left as a colostomy in the upper end of the wound. Following this operation the patient did badly with frequent and persistent vomiting which could not be controlled. On December 6 the wound opened, resulting in evisceration. This condition was immediately



Fig. 5. Case 2.

Barium showing greatly enlarged colon while gas may be seen in distended loops of small bowel.

corrected and by December 19 we had succeeded in fortifying the patient sufficiently to attempt a second stage of the procedure. Originally we had hoped to remove the remainder of the colon at this stage but due to the patient's condition we were content now to simply resect the ileum just beyond the anastomosis, thus isolating this small section of terminal ileum and the rest of the colon. The end of the detached ileum was brought out through the abdominal wall, the other end having been inverted. This relieved the vomiting. The patient made a good recovery, leaving the hospital Feb. 12, 1937, with the two sinuses open but not annoying. July 22, 1937, he returned in excellent physical condition and the remainder of the colon and section of ileum were removed. Final discharge Aug. 13, 1937.

Subsequent course. The patient writes that he has enjoyed perfect health ever since leaving the hospital in August, 1937.

Case 3. This is the case of a white girl, aged 7, who was born in this hospital (Archbold). During her stay here the record shows that she vomited a great deal but her bowels moved several times. There is nothing in the record to indicate that Hirschsprung's disease was suspected at that time. For this condition she was admitted April 6, 1942. The mother stated that she had been constipated all of her life but by diligent care and watchfulness she had been able to keep the child reasonably active and comfortable, hoping she would outgrow it. She had been told by some doctors that she would outgrow it. However, instead of getting better she was getting worse, and the attacks of pain and vomiting were more frequent and more difficult to relieve.

Examination revealed a bright young white girl, quite well nourished but with very prominent abdomen over which could be traced outlines of bowel patterns and marked peristaltic waves. There were no masses to be



Fig. 6. Case 3.

Barium enema. Fecal mass seen in huge right colon and splenic flexure. Sigmoid and rectum appear normal.

seen or felt. The lower ribs flared outward. Plain x-ray film showed fecal masses in the ascending and transverse colon which were extremely large. A barium enema was given with very good results, and the abdomen was considerably reduced in size. Next day the abdomen was just as prominent as before. Despite the marked peristalsis no bowel movements occurred. On April 8 a spinal anaesthetic was attempted without success. Under observation for two more days there was no response to treatment and, yielding to an appeal from the mother, we decided on a multiple stage resection of the colon.

A study of the barium enema (fig. 6) revealed a normal looking sigmoid and lower part of the descending colon. When the rectum was filled by an enema there was the normal urge to go to stool.

In planning the first step in this operation we could not forget the persistent vomiting in Case 2, which was checked by resecting the terminal ileum. Consequently on April 10, through a low mid-line incision, the terminal ileum was resected; its proximal end was anastomosed side-to-side to the sigmoid and the terminal end brought out through a stab wound. The abdominal wound was then closed, completing the first stage in a contemplated multiple-stage procedure.

The first day following operation there was a voluntary bowel movement but there was persistent nausea with vomiting. The abdomen became greatly distended apparently from the small bowel as well as large bowel distention.

On April 13, three days after operation, an enterostomy was done with only temporary relief. The next day the condition was worse and a second, higher enterostomy was done. This relieved the small bowel distention but did not relieve the patient's toxemia which, by this time, was quite marked with high temperature,

rapid pulse and sunken eyes. Clinically it was a picture of general peritonitis and the general feeling was that a leak in our anastomosis had occurred, resulting in peritonitis. Death occurred on April 16, six days after the first operation. A postmortem examination revealed no peritonitis, the anastomosis being clean, but there was an extreme dilatation of the entire colon down to the rectum. It is assumed that death was due to toxemia from this condition.

Comment

Prior to doing the first enterostomy in Case 3 we discussed the advisability of resecting the colon just above the anastomosis, inverting the distal end and leaving the proximal end exteriorized in the wound. This would have isolated the colon and may have saved the situation. Had we felt more confidence in our anastomosis and dismissed the complication as being peritonitis, we no doubt would have done this very logical procedure.

Case 1 needs no comment and no doubt it is fortunate that more than 50 per cent of these cases are segmental in the sigmoid.

In Case 2 the isolation of the colon corrected the distressing and devastating nausea and vomiting. This isolation was not done in Case 3 and death soon occurred. This suggests, therefore, that anastomosis plus complete isolation of the diseased segment of colon at the first operation is to be recommended.

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SAYS ILL EFFECTS NEED NOT BE EXPECTED FROM BLOOD DONATIONS BY WAR WORKERS

Industry need not be concerned about the blood donations on the part of war workers having any effect on absenteeism or lowered production, *The Journal of the American Medical Association* for May 15 explains. *The Journal* says:

"Industrial concerns recently have been apprehensive about the effect of blood donations on war workers. A number of medical consultants to the Industrial Hygiene Foundation have concluded that ill effects need not be expected if standard procedure is followed closely. Although there may be some temporary lassitude on the part of indoor sedentary workers, eligible donors are not as a rule made weaker nor is there greater susceptibility to upper respiratory infections or other complications in the immediate period following the donation. It was the consensus that industry need not be concerned about the matter from the point of view of absenteeism or lowered production."

**MEMBERS REGISTERED AT THE NINETY-FOURTH ANNUAL SESSION OF
THE MEDICAL ASSOCIATION OF GEORGIA,
ATLANTA, MAY 11, 12, 13, 14, 1943**

A

Abercrombie, T. F., Atlanta
Abreu, B. E., Augusta
Acree, M. A., Calhoun
Adams, G. H., East Point
Alexander, Geo. H., Forsyth
Allen, C. H., Bremen
Allen, Eustace A., Atlanta
Allen, H. D., Jr., Milledgeville
Allen, Lane, Augusta
Allison, G. G., Atlanta
Amis, Frank J., Hogansville
Anderson, Carl L., Macon
Anderson, Horace M., Atlanta
Anderson, J. C., Macon
Anderson, W. W., Atlanta
Applewhite, J. D., Macon
Arnold, Herbert L., Emory University
Arnold, W. A., Atlanta
Arp, C. Raymond, Clarkesville
Arthur, J. F., Atlanta
Askew, Hulett H., Atlanta
Askew, Rufus, Atlanta
Avary, Arch, Ellaville
Aven, Carl C., Atlanta
Ayer, G. D., Atlanta
Ayers, A. J., Atlanta
Ayers, C. L., Toccoa

B

Ballenger, E. G., Atlanta
Ballenger, W. L., Atlanta
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Banister, W. G., Rome
Bancker, E. A., Atlanta
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Bowcock, Harold, Atlanta
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 Hutchins, W. J., Buford
 Hutchins, J. T., Atlanta
 Hutchinson, W. L., LaGrange

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 Lipscomb, W. E., Cumming
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 Lowance, Mason I., Atlanta
 Lunsford, Guy G., Atlanta
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 Owenshy, N. M., Atlanta

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 Thomas, Russell, Americus
 Thomas, W. C., Brunswick
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 Thompson, Cleveland, Millen
 Thompson, D. N., Elberton
 Thomson, Jas. L., Eastman
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 Turner, W. W., Nashville, Ga.

U

Upchurch, W. E., Atlanta
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 Ware, Ford, Macon
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 Watson, E. R., Atlanta
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 Weaver, O. H., Macon
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 Wright, J. J. C., Doerun

Y

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 Youmans, H. D., Lyons
 Young, W. W., Atlanta

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 Campbell, Elmer, St. Petersburg, Fla.

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 Hall, Wayne, Paterson, N. J.
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 Youngblood, V. H., Concord, N. C.
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TREATMENT OF PERFORATED DUODENAL ULCER FROM A SURGICAL STANDPOINT

J. C. BLALOCK, M.D.
Atlanta

I present certain observations which I have made as a result of my treatment of 40 cases of perforated duodenal ulcer, together with a study of 37 other cases from the records of the past five years of the Georgia Baptist Hospital. In every instance the ulcer was perforated when the patient first presented himself for treatment.

According to the history of the patient, in 27 of these cases in my own practice the operation was performed from three to eight hours after the first symptoms of perforation. In one patient with symptoms of perforation appearing 24 hours before he appeared for treatment, operation was not advised. Clinical symptoms and x-ray picture, showing air under the diaphragm, clearly indicated perforation of the duodenum. However, the condition of the patient was bad. Opening the abdomen where general peritonitis was evident was not advisable. Instead, continuous suction by Levine tube, sulfonamides and supportive treatment were used, and the patient recovered. Here was a case of a small perforation which nature sealed off. I might add that there is no question that there are a number of cases of small, so-called pin-point perforations that recover without any treatment whatever.

Etiology and Pathology

Dean Lewis stated that the etiologic factors of duodenal and gastric ulcers are similar. Reeves showed that the vessels in the duodenum and in the pyloric portion of the stomach are long and slender and run for a long distance parallel to the lumen, thus permitting the possibility of easy thrombosis of the vessels in such a structure. When thrombus formation occurs an infarct results and the dead tissue is readily digested by the gastric juice. This leaves a raw surface, but under ordinary conditions such a surface heals rather promptly.

To continue this theory, the pyloric por-

tion of the stomach secretes an alkaline fluid, as does the duodenum. Peptic ulcers, including jejunal ulcers after gastro-enterostomy, are apt to occur in that portion of the mucosa of the gastro-intestinal tract whose normal secretion is alkaline but is exposed to the direct contact of acid from the gastric juice. Therefore, ulcers of the duodenum are more common in the first portion of the duodenum and in the anterior wall, the part that receives the impact of the acid gastric contents as it is emitted through the pyloric sphincter. Further down in the duodenum ulcers are rare, particularly below the ampulla of Vater through which pours into the duodenum the highly alkaline pancreatic juice and the bile.

It seems logical to conclude that the frequent site of ulcers in the pyloric and duodenal mucosa has some relation to the effect of the acid gastric juice. Yet this does not wholly account for the ulceration because occasionally ulcers are found when hydrochloric acid is absent from the gastric juice. Rosenow's work, recently confirmed by Haden, Orr and others, showing the effect of certain strains of streptococci, is well known. These streptococci may have as an original focus teeth, tonsils or other portions of the body.

Clinical Symptoms and Diagnosis

Early diagnosis is extremely important. The perforated duodenal ulcer, if anterior, gives very definite symptoms; severe pain comes quickly and the movement of the diaphragm is limited. The muscles of the upper abdomen are rigid and board-like, particularly on the right side; vomiting is usual and vomiting of blood not unusual. Physical examination may show absence of liver dullness. Shock is usual also in the early stage, followed by increased temperature and rapid pulse. Rather rapid rise of the white blood cell count and the polymorphonuclears occur. The chief element of shock is due to the loss of the fluid portion of the blood into the capillaries and the extravascular spaces of the body.

If the ulcer ruptures posteriorly, the symptoms are entirely different. Sometimes they resemble kidney colic, there being no pain nor muscle spasm in the epigastrium but the pain being in the right kidney region

and over the appendix. It is only by palpating the duodenum that the infiltration of the posterior wall can be ascertained. Examination of the urine may even show some leukocytes. On opening the abdomen an edematous condition of the peritoneum behind the ascending colon and the cecum not due to the appendix, should excite suspicion of a retroperitoneal perforation of the duodenal ulcer.

Perforated duodenal ulcers often occur without previous symptoms. Such an ulcer may be acute, caused by a thrombus from a focus of infection, with the perforation occurring soon after the ulcer begins and before the typical symptoms appear. Aside from the streptococci of Rosenow, the products resulting from a burn are apt to cause inflammation of the duodenum. The quickly perforating ulcers without previous symptoms may be accounted for by the sudden action of some toxic substance with an affinity for the duodenum.

Finally, the x-ray examination is a great aid in the diagnosis of the perforated duodenal ulcer. This frequently shows air under the diaphragm.

Treatment

The earlier the physician sees the patient with a perforated duodenal ulcer, and the quicker he makes his diagnosis, the better the prognosis and the lower the mortality. In the event the perforation is small, the surgical treatment consists of approximating the edges of the ulcer through the serosa and muscular layer of the edge of the ulcer, by interrupted mattress sutures. The sutures should close the perforation without constricting the duodenum. If the perforation is large, such as the width of the finger, with the presence of induration around the perforation, making difficult a close approximation of the edges of the ulcer, good results may be obtained by suturing a piece of omentum over the perforation. Biopsy can always be done; however, malignancy of the duodenum is very rare, which is not the case of the gastric ulcer.

In all cases it is advisable to insert a cigarette drain, being well aware, of course, that it is impossible to drain the entire peritoneal cavity. However, there will always be some drainage of bile and peri-

toneal fluid, which lowers the irritability of the peritoneum and assists in establishing a tract for drainage and also acts as a safety valve in case the ulcer perforates again.

In my 40 cases I am happy to state that I have not had a single subphrenic abscess, which I believe is largely due to the use of the cigarette drain.

The most common complications of perforated ulcers usually encountered are: general peritonitis, subphrenic abscess, and duodenal fistula. I have observed that in the past five years, since the advent of sulfonamides, these complications are greatly lessened. The sulfonamides may be placed in the peritoneal cavity directly on the wound or given intravenously or subcutaneously immediately following operation. Much earlier recovery is assured and healing occurs almost as well as in a clean laparotomy.

Postoperative Treatment

I have achieved best results in postoperative treatment by the use of the Levine tube and by keeping the stomach empty for 18 hours. The stomach is then irrigated with small amounts of alkaline solution. The fluid balance is maintained by intravenous injections of saline and glucose, and occasionally by blood transfusions. On the third day the patient is given a Sippy diet and from then on is treated as a medical case.

Recurring Perforation

It might be of interest to cite one instance where a perforation occurred three successive times over a period of five years. A man 31 years of age gave symptoms that he had observed over a period of a year. Let me say that perforation had already occurred when he first appeared for treatment. He was operated on successfully six hours after symptoms of perforation first occurred. At the age of 34 he came in again with symptoms of a perforation. He said he had had symptoms of ulcer over a period of three months this time. I operated on him again successfully. At the age of 36 he appeared a third time, giving symptoms of an ulcer of about one month's duration. He was operated on for the third time successfully. The history of this patient showed that he was a heavy drinker of alcohol, an

habitual smoker and had marked dental caries. He had been advised, of course, from the start to give up these habits, to be careful of his diet and to have his teeth removed, all of which he refused to do. However, after the third operation he took the advice of the physician in regard to his alcoholic and smoking habits and also had his teeth extracted. X-ray study was made less than a year ago and his duodenal cap filled normally and no evidence of disease could be seen. At the present time he enjoys perfect health.

Statistics on 40 Cases in My Practice; All Males:

- 1 at the age of 19;
- 17 between the ages of 21 and 31;
- 11 between the ages of 31 and 41;
- 5 between the ages of 42 and 52;
- 7 between the ages of 52 and 71;
- 1 at 71, not operated on.

I believe the success of the operation in all of the above cases was due in large part to the fact that they appeared for treatment in a comparatively short time after perforation, from three to eight hours after the first symptoms appeared.

Statistics on 37 Cases from Georgia Baptist Files Covering a Period of the Past Five Years; All Males:

- 13 between the ages of 21 and 31;
- 9 between the ages of 31 and 41;
- 14 between the ages of 41 and 70;
- 1 at 71

In reviewing these cases I invite your attention to the following. One case of perforated duodenal ulcer of 12 hours' duration was a man of 42. The perforation was closed and gastro-enterostomy performed. The patient died within 48 hours. Another was a man 56 with a perforation of 8 hours' duration. Perforation was closed and anterior gastro-enterostomy was performed and the patient died within 24 hours. Two other cases were noted of men 68 and 71 respectively. They were practically moribund on arrival at the hospital. The perforations were closed and drained.

Being on the service of the hospital I know that many of these cases are brought to the physician from a long distance and are practically moribund on arrival.

Conclusions

1. The perforated duodenal ulcer is essentially a condition of the male adult. Seventeen of the 40 cases occurred be-

fore the age of 31, though it should be realized that it may occur at almost any age.

2. Early diagnosis and operation are first in importance.
3. Use of the Levine tube in postoperative treatment is extremely effective.
4. Advent of the sulfonimides marks an acceleration in the recovery of these patients and a great reduction in the mortality rate.

PRENATAL BLOOD TEST LAW

Based on the results obtained in the 1942 Intra-State Serology Evaluation Study, the following laboratories are approved by the Georgia Department of Public Health for the year 1943 for the performance of standard Serologic tests for syphilis, in accordance with the requirements of the recently enacted pre-natal law which becomes effective July 1, 1943. Standard Serologic tests for syphilis are those approved by the U. S. Public Health Service, namely: Wassermann tests—Kolmer and Eagle; Flocculation tests—Kahn, Kline, Eagle, Mazzini, and Hinton.

Central Laboratory, State Department of Health, Atlanta, Ga.

Branch Laboratory, State Department of Health, Albany, Ga.

Branch Laboratory, State Department of Health, Waycross, Ga.

City Department of Health, City Hall, Atlanta, Ga.

Clarke County Department of Health, Athens, Ga.

Grady Hospital, Atlanta, Ga.

Lowndes County Department of Health, Valdosta, Ga.

Macon Hospital, Macon, Ga.

Muscogee County Department of Health, Columbus, Ga.

Richmond County Department of Health, Augusta, Ga.

Municipal Laboratory, Savannah, Ga.

Steps will be taken to approve any other laboratories in the State which may make such requests.

H. B. 136—GOV. 346

To prevent syphilis in the unborn child; to require every physician (and the word "physician," wherever used in this act, shall be construed to embrace and include those persons licensed to practice under the Osteopathic laws of this State) attending or every other person permitted by law to attend pregnant women to take or cause to be taken a specimen of blood of such pregnant women for submission to an approved laboratory for a standard serologic test for syphilis; to define standard serologic test and approved laboratory; to require birth certificate to show date when standard serologic test was made, and if no such test, reason shall be recorded on birth certificate; to provide for penalties for violations of this Act; to declare this Act to be effective as of July 1, 1943; and for other purposes.

BE IT ENACTED BY THE GENERAL ASSEMBLY

OF GEORGIA AND IT IS HEREBY ENACTED BY AUTHORITY OF THE SAME:

SECTION 1

That every woman who becomes pregnant shall have a blood specimen taken for submission to an approved laboratory for a standard serologic test for syphilis.

SECTION 2

That any licensed physician, attending or giving prenatal care to a pregnant woman in this State, shall take or cause to be taken a specimen of blood of each woman so attended within thirty (30) days from the date of the first examination for submission to an approved laboratory for a standard serologic test for syphilis. In case such pregnant woman is in a stage of labor at the first examination, which may make it inadvisable to obtain a blood specimen, then the specimen shall be obtained within ten (10) days after delivery. Provided no doctor or person taking such test shall charge more than one dollar therefor.

Each other person in the State who is permitted by law to attend pregnant women, but not permitted by law to obtain blood specimens, shall cause such a specimen of blood to be taken within thirty (30) days from the date of the first examination of each woman so attended, by a qualified and licensed physician, for submission to an approved laboratory for a standard serologic test for syphilis.

SECTION 3

For the purpose of this Act a standard serologic test shall be a test for syphilis approved by the Georgia Department of Public Health, and an approved laboratory shall be any laboratory approved by the Georgia Department of Public Health.

SECTION 4

That any woman who is pregnant and who is unable to pay a licensed physician to take a blood test, as required by this Act, may have such blood specimen taken by the local health department or the county physician for submission to an approved laboratory for a standard serologic test for syphilis.

SECTION 5

That physicians, and other persons permitted by law to attend pregnant women and who are required to report births and stillbirths, shall state on the birth certificate whether a blood test for syphilis, as required by this Act, has been made on the woman who bore the child for which a birth certificate is filed, and shall state the approximate date of such test, provided that no birth certificate shall show result of test. If no such blood test was made, reasons for failure to make test shall be stated.

SECTION 6

That any licensed physician, attending mid-wife, county health officer, county physician, or the pregnant woman herself, or any other person who knowingly and wilfully violates this Act, or any part thereof, shall be guilty of a misdemeanor, and, upon conviction thereof, shall be punished as for a misdemeanor.

SECTION 7

That if for any reason any section, provision, clause,

THE PRESIDENT'S PAGE

DOCTORS FOR OUR COUNTRY'S NEEDS

The privilege of attending the meeting of the Directing Board for the Procurement and Assignment of Physicians, Dentists and Veterinarians, held in Chicago June 8, was accorded the Georgia committee. Dr. Edgar Shanks and I attended this meeting, and the annual session of the House of Delegates of the American Medical Association.

So many "directives," each numbered for reference, are sent the State Procurement and Assignment Committee that it was a real pleasure to sit around a large table with other interested persons and hear a free discussion of our problems, discussion by the very men who originate the directives and by those whose duties are to co-operate in the program.

This meeting was presided over by Dr. Frank Lahey, chairman of the National Directing Board. He and his associates, Dr. M. E. Lapham, Dr. Harold Diehl, Dr. Harvey B. Stone, Dr. James E. Paullin and Dr. H. C. Leuth, discussed current problems. At the same time representatives from each of the states were given opportunity to ask questions, all of which were freely discussed with the view of clarifying urgent problems.

Brought out at this meeting, which can be released now, were the following facts:

1. *New quotas* will soon be furnished all states. Most states have filled their 1943 quotas and Georgia is among them, but it was made clear that more doctors are needed and that many who have been temporarily deferred will be reappraised as to "availability" or "essentiality."

2. *Interns and Residents.* Dr. Lahey stated he feared that many hospitals, especially small units without proper accreditation for the teaching of interns, had been trimmed too closely of their interns, that these hospitals were as much a part of the general medical care of the Nation as were

larger accredited hospitals which had been allowed sufficient trained personnel, some of whom hold commissions in the medical corps of the armed services. At the same time he indicated that the very thought by any doctor of receiving any recognition anywhere, before applying for a commission, was without foundation. Dr. Lapham stated that the hospitals of the United States had been slow in requesting deferment of physicians already commissioned as medical officers, that only 405 such requests had been received at the Central Office to date. Again it was emphasized that no doctor need apply for anything before he applied for his commission.

3. *Ratio of Army and Navy Recruitments.* Applicants for commissions are now granted their preference for either the Army or the Navy: the Army needs 8 doctors each time the Navy needs 3 doctors. Later, perhaps in a short time, doctors who are under 45 years of age and who have not availed themselves of the opportunity offered now, will be proportioned as the needs arise on the basis of 8 to 3 without regard for their choice of branch of service.

4. *Women Physicians.* Both the Army and Navy now admit women physicians, and the Navy desires 500 women physicians for immediate recruitment and service.

5. *Physically Disqualified Physicians.* Doctors who have been physically disqualified should *feel* it a patriotic duty to cooperate with the State Committees and offer their services in the areas of their states sorely in need of physicians and minimum medical care, should they not be "essential" to their own communities.

6. *The Country's Need for Doctors.* It was definitely emphasized that there were not enough doctors under 38 years of age to fill the needs of the armed forces; and that aged 45 was the Procurement and Assignment age limit!

W. A. SELMAN, M.D.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

JUNE, 1943

CLEVELAND THOMPSON, M.D.*"Tolerance is the only real test of civilization."*

—ARTHUR HELPS.

It has been said that one must possess certain attributes before he can be considered presidential material. These include being born on a farm, preferably in a log cabin; and without much of the world's goods. And one must be tolerant.

The new president-elect of the Medical Association of Georgia, Dr. Cleveland Thompson, of Millen, was born on a farm near Vidalia, Georgia, Nov. 7, 1884, the son of Thomas and Mary Jane Wilkes Thompson of Montgomery County, Georgia. Fortunately for him, he enjoyed the associations of a large family: he learned from them the true meaning of *tolerance* before he was admitted to the public schools of his community.

Young Thompson obtained his high school training in nearby Vidalia and then matriculated at Hearn Academy Junior College, where he remained for two years before being admitted to the University of Georgia School of Medicine, in 1905. His record in medical school won for him an internship in the University Hospital during his senior year; and second honor in his class, which was graduated in 1909.

Dr. Thompson early elected to practice his profession in one of Georgia's best counties — Jenkins. He practiced in Millen in association with the late Dr. L. J. Belt for eighteen months, and then accepted an appointment for a two-year rotating intern service in New York Polyclinic Hospital. He returned to Millen in 1912 and since that time has rendered continuous medical service to the people of his community and State.

Like all good physicians, Dr. Thompson's attainments have been the tedious growth of an orderly, honest mind, avid for information; an unbending determination, and

unlimited energy. His ability to endure is amazing; and no matter how difficult the day's work has been, he finds time for study. Since 1922 he has owned and operated Millen Hospital, which was fully accredited by the American College of Surgeons in 1930.

Dr. Thompson identified himself with organized medicine early in his professional career. He holds membership in the following named organizations: Jenkins County Medical Society, First (Georgia) District Medical Society, Medical Association of Georgia, Southern Medical Association, American Medical Association, Chattahoochee Valley Medical Association, Southeastern Surgical Congress, American College of Surgeons, Georgia Hospital Association and American Hospital Association. Offices which have been held by him include: secretary-treasurer of the Jenkins County Medical Society, for twenty-five years; president of the First (Georgia) District Medical Society, two terms; vice-councilor and councilor from the First (Georgia) District Medical Society to the Medical Association of Georgia; chairman of the Council of the Medical Association of Georgia, second vice-president of the Medical Association of Georgia; member of the State Board of Health from the First Congressional District of Georgia, and member of the State Board of Medical Examiners of Georgia. In addition, he has been local surgeon for the Central of Georgia Railroad since 1920.

Dr. Thompson is a loyal member of the Baptist Church. He is a Mason, and a member of the Alpha Kappa Kappa Medical Fraternity, and the Rotarians. His chief avocation is hunting and fishing, so he must also be a member of the Jenkins County Foxhunters' Club. He knows the woods and swamps, bird calls, wild flowers and trees. He has many trophies of the hunt he loves next to his stethoscope and scalpel. His minor hobby is photography.

Dr. Thompson married Miss Eileen Lannier, of Millen, in 1913. They have one son, Cleveland Thompson, Jr., who is now Flight Commander at Carlstrom Field in Arcadia, Florida. Said to be important in



CLEVELAND THOMPSON, M. D., Millen
President-Elect, 1943-44



ADMIRAL LUTHER SHELDON, JR., M. C., U. S. Navy,
Bureau of Medicine and Surgery, Navy Department,
Washington, D. C.

the Thompson family also are the daughter-in-law and grandson, young Cleveland Thompson III.

The Medical Association of Georgia is to be congratulated for having Cleveland Thompson as one of its leaders. He will give the Association full measure of his ability and energy, both of which will be needed in these years when war is again with us. Let each of us — the other members of the Association — do our part to help him give to our State and to our country the best offered by the medicine of today; and may all of us remember that "tolerance is the only real test of civilization."

Other officers of the Medical Association of Georgia elected and some re-elected as follows:

Major Fowler, Atlanta, First Vice-President;

C. Hall Farmer, Macon, Second Vice-President;

Olin H. Weaver, Macon, delegate to American Medical Association;

C. K. Sharp, Arlington, alternate delegate to the American Medical Association.

Admiral Sheldon delivered the Abner Wellborn Calhoun Lecture at the Ninety-Fourth Annual Session of the Medical Association of Georgia, Biltmore Hotel, Atlanta, May 12, 1943.

Councilors

Fifth District—Marion C. Pruitt, Atlanta;

Sixth District—H. D. Allen, Milledgeville;

Seventh District—Z. V. Johnston, Calhoun;

Z. V. Johnston was elected chairman and Steve P. Kenyon, clerk.

Executive Committee

W. A. Selman, Atlanta, President.

Z. V. Johnston, Calhoun, Chairman of Council.

Edgar D. Shanks, Atlanta, Secretary-Treasurer.

Chairmen of Standing Committees

Scientific Work—Mark S. Dougherty, Jr., Atlanta;

Public Policy and Legislation—Spencer A. Kirkland, Atlanta;

Medical Defense—M. C. Pruitt, Atlanta;

Abner Wellborn Calhoun Lectureship—J. E. Paullin, Atlanta;

Cancer Commission—J. L. Campbell, Atlanta.

Savannah was selected for the next meeting place, April 25, 26, 27, 28, 1944.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*MALARIA IN THE WAR AND ITS
RELATION TO GEORGIA

The present world conflict should focus the eyes of the medical profession upon the tropical diseases and particularly malaria—the most important of these conditions. Malaria is the most prevalent of all diseases from which man is made to suffer and it is practically worldwide in distribution. This disease occurs in every land in which our troops are now or will in the future be stationed from Lake Lagoda in Russia to Southern Africa, from Vladivostok to Australia and from Canada to the Southern Argentine. It is most severe in the area from thirty degrees north to thirty degrees south of the equator. The great epidemic areas are in equatorial regions of Africa, India, Burma, Thailand, Indo-China, the Islands of the Pacific and South America. India, with its huge population, is probably the hardest hit by ravages of this disease. In this country over one hundred million cases have occurred in a single year. In many regions of Africa, India, Burma and the Pacific Islands the infection rate in the natives runs from 95 to 100 per cent.

The Army and Navy recognize the importance of the tropical diseases and include courses of study in these subjects in the training of their regular medical officers. The medical schools and the medical profession do not attach sufficient significance to these conditions, which will be our problem when the thousands of men return from far flung battle fronts, many of whom will be chronic carriers of these diseases.

The Army and Navy, realizing the importance of malaria as a cause of illness and death, have taken steps to control this disease in and around military cantonment areas in this country and around our permanent bases abroad.

In Georgia the Malaria Control in War Areas of the United States Public Health Service is in charge of the program around the military areas. This program is being carried out by the Public Health Engineering Division of the Georgia Department of Public Health and is well planned and executed. This program falls short in that it is operated only in the cantonment area, a radius of one mile around the military installation or war plant, one mile down each side of the road to town and around the adjoining town. The program should be county-wide in counties having war areas because the soldiers on leave will get outside the control area and the war worker probably resides outside the control area. If the soldier or war worker contracts malaria outside the control area they will be just as sick and lose just as much time as if they had con-

tracted the disease in the control area. Also, the program omits entirely the farmer who must provide the food to feed the nation and he must live in the areas most likely to be infested with malaria mosquitoes.

The Standard Plan of Malaria Control worked out by the staff of the Georgia Department of Public Health in consultation with malaria specialists of the Rockefeller Foundation and the U. S. Public Health Service makes full use of the sciences of medicine, entomology and engineering in getting the most benefit for each dollar spent on malaria control. The program was promoted by and given supervision by the staff of the Georgia Department of Public Health and operated by county public health personnel. This program has had to give way to the U. S. Public Health Service sponsored program in that County Health Officers, County Public Health Engineers and members of the supervising staff of the Georgia Department of Public Health have been called into the armed forces plus the fact that foremen and dusting and oiling crew members have been drafted or have found more lucrative jobs in war industries. The U. S. Public Health Service sponsored program paid higher wages than the local health departments could afford to pay for all types of services. Under the Standard Plan the procedure outlined briefly was to locate the malarial foci, find the breeding areas and determine the best and cheapest method of eliminating the source of trouble.

In Georgia the chief vector of malaria is the *Anopheles Quadrimaculatus*; however, many members of the *Anopheles* family are capable of transmitting the disease and in other sections of the United States and in foreign countries other members of the anopheline family are the vectors. Therefore, methods of control may be somewhat different from those employed against the *A. Quadrimaculatus* in Georgia. The *A. Quadrimaculatus* breeds in fresh still water, chiefly in ponded or impounded areas. The water within a certain pH range and *A. Quadrimaculatus* larvae are more abundant where certain types of vegetation are found. Our control procedures are draining, filling, oiling or paris green dusting. All of these procedures are costly in that ditches must be dug and maintained. Dirt must be hauled for filling, oiling or dusting must be repeated every 5 to 6 days during the breeding season and repeated every year.

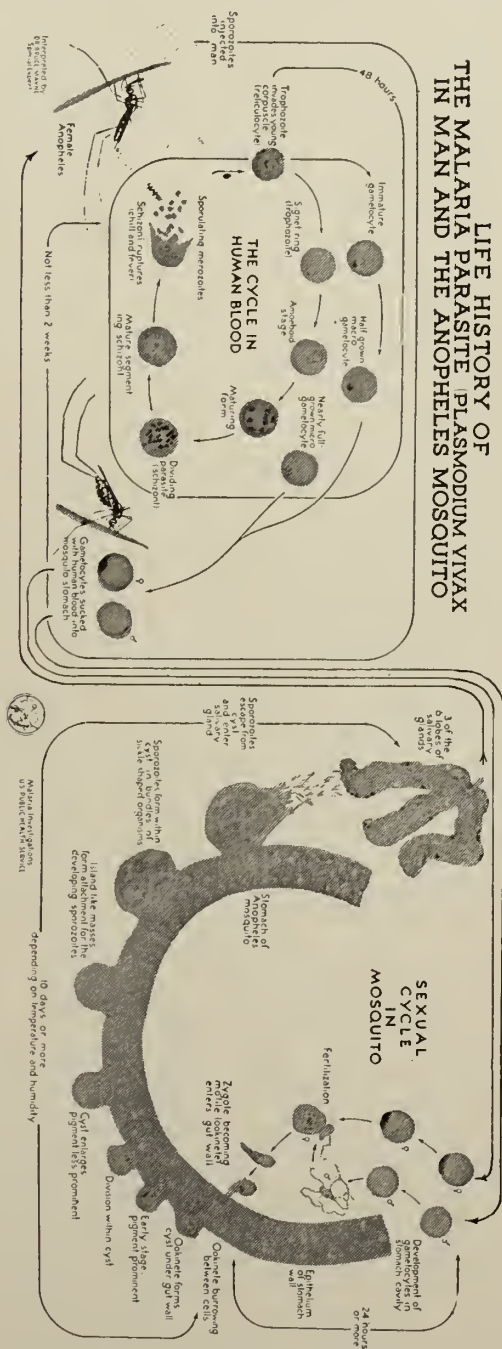
Other methods of control are screening, the use of repellants, and prophylactic drugs. The Army and Navy are providing for control of *Anopheles* breeding around their permanent bases abroad and have screened the hospitals and bar-

racks and keep the men in after dark. These methods are adequate where they can be employed, but men in combat zones on the firing lines cannot be protected by these methods. In the hot, humid climates it is almost impossible to wear protective clothing, nets are useless in the tangled jungles in protecting face and neck, and repellants are soon exhausted or washed away by perspiration. The use of insecticide sprays are of little or no value in the open and a man busy fighting for his life against an armed opponent does not have time to use a spray gun against mosquitoes. That leaves us with only the prophylactic drugs quinine and atabrine (additional drugs have been found that possess some anti-malarial value). The supply of quinine was cut off along with our rubber supply when the Japanese captured the Dutch West Indies as approximately nine-tenths of the world's quinine supply came from that area. American made atabrine has proven as effective as the German product. The prescribed treatment will not completely cure all cases and many cases will relapse.

The fact that we are only sixty hours traveling time from the most distant point on the globe will probably have a considerable bearing on the malaria picture in Georgia and other sections of the United States. Men returning from the fronts in the tropics on furloughs or as injured who are home recuperating will develop the disease contracted while on duty or relapse and serve as a reservoir of infection for local mosquitoes. These mosquitoes in two or three weeks can transmit the disease to the local population. Then the factors necessary to set off an epidemic of malaria may be supplied by the returning troops. I only mention this because it has happened before and the estivo-autumnal or malignant tertian malaria brought in from Africa, India and the South Pacific is much more serious than the tertian malaria commonly seen in our State. Not that we don't have estivo-autumnal malaria in Georgia, but these new strains will probably be much more virulent than those we have at present.

The records of the Georgia Department of Public Health of both morbidity and mortality concur in the fact that there has occurred in Georgia a peak in malaria every seven years. The last peak was 1936 when 11,931 cases and 606 deaths were reported. This means that if the seven-year cycle runs true to form we can expect a flare up of malaria in 1943. In the past the records show that there has been a minor rise in both the number of cases and deaths during the sixth year of the cycle preparatory to the peak during the seventh year. However, in 1942 there was a further decline to a new low level when 781 cases and 76 deaths were recorded. The war has been a disturbing factor in that it has caused large population shifts, living habits and diets have changed and we

do not know what to expect. If we do have an epidemic of malaria this fall it will probably be severe in that the population of some of our malarious areas have markedly increased, housing conditions in these areas are not yet adequate, medical care is still inadequate in some areas,



quinine is available only on a physician's prescription, the "chill tonics" will probably contain less of this drug than formerly, malaria control efforts have been curtailed or abandoned and the new strains of parasites will probably be more virulent than those already present.

(Continued on page 216)

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1943-44

President—Frieda Grefe, R.N., Savannah.

First Vice-President—Sister Cornile, Atlanta.

Second Vice-President—Mrs. Mae M. Jones, Milledgeville.

Secretary—Mrs. Esther Watts, Columbus.

Treasurer—Jane Van De Vrede, Atlanta.

Executive Secretary—Durice Dickerson, R.N., Headquarters, 131 Forrest Ave., N. E., Atlanta; Tel. WA. 8911

Chairman, Private Duty Section, G. S. N. A.—Mrs. Mildred Pryse, Atlanta.

President—Georgia League of Nursing Education, Ruth Babin, Atlanta.

President—Georgia State Organization of Public Health Nursing, Vera Mingledorff, Griffin.

Chairman, Private Duty Section, G.S.N.A.—Mrs. Mildred Pryse, Albany.

WHAT GEORGIA PUBLIC HEALTH NURSES ARE DOING IN WAR NURSING

VERA A. MINGLEDORFF, R.N.

Griffin

President, Georgia State Organization for Public Health Nursing

Georgia may well be proud of her public health nurses! As of Jan. 1, 1943, there were 507 public health nurses in Georgia. They are working unceasingly on the *home front* to protect the health of the several communities from the ravages of disease. Many of these public health nurses are working in local health units, in industries, and in official and non-official agencies. However, there are 36 counties without the services of a full-time public health nurse.

With increased activities caused by war conditions and the shortage of physicians, public health nurses realize the importance of services for which they are particularly trained, and they have doubled and re-doubled their efforts to prevent the spread of disease, protect and promote the health of the communities they serve.

To relieve her of routine duties, the public health nurses have trained inactive or retired registered nurses and lay personnel to assist in clinics and with clerical work.

In many counties the public health nurses have assisted in the syphilis and tuberculosis surveys made in industries. Their activities may be summarized as follows:

1. To promote the immunization program for the protection of the civilian population against typhoid, diphtheria, and smallpox.

2. To schedule activities that will assist in relieving physicians of need for home calls. For example: nursing visits are made to pre-natals, infants, etc., to determine if the services of a physician are mandatory.

3. To cooperate with the Selective Service Board and to assist with the examination of draftees who are to be inducted into the armed forces; later acting as a clearing house in the follow up of those rejected because of (a) physical defects, (b) venereal disease, and (c) tuberculosis.

4. Those infected with venereal disease are placed under the treatment of a private physician or are treated in venereal disease clinics. Their contacts are interviewed and many placed under

treatment. Practically every county in Georgia has a venereal disease control clinic served by a full-time public health nurse or an itinerant public health nurse.

5. All rejected draftees reported by the draft board or induction center as being suspects of tuberculosis, or as active cases, have been re-x-rayed. Their contacts are being examined and where active cases have been found, they have been isolated in the homes or hospitalized according to recommendations of the x-ray report.

6. After long hours of routine work, the public health nurse is doing her bit for the Red Cross: knitting, making surgical dressings and bandages, donating blood and assisting in the blood plasma banks, taking refresher courses in home nursing and first aid in order to qualify to teach these classes. To date 1,812 classes have been taught with an attendance of 32,480.

7. Practically every public health nurse has registered with the OCD for emergency nursing service to serve her particular county or an adjoining county in case of an "incident." Following the plan of the State Nursing Council for War Service, the public health nurse is serving either as a county key nurse, local nurse deputy, or as a member of the council. Some few are serving on the State Nursing Council.

8. In the recruitment of student nurses, the public health nurse has put on a program of education through personal contact, talks to high school and professional groups, radio talks, motion pictures, and the distribution of Vocational Guidance folders and other pertinent literature.

9. In communities where physicians are examining students for the Victory Corps, the public health nurse is assisting and following up defects for correction.

10. Organizing and assisting in the organization of Nutrition Councils, thereby bringing about a closer working relationship and coordination of the services of all agencies in the counties. Every opportunity is used to stress the value of nutrition, the planting of Victory Gardens and the preservation of foods.

11. To offer their services for military duties, 27 public health nurses have answered the call to the colors. Of this number 22 are serving in the Army and 5 in the Navy.

We in our branch of the nursing profession are feeling keenly the shortage of trained personnel.

WOMAN'S AUXILIARY

President—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.

President-Elect—Mrs. W. T. Randolph, Winder.

First Vice-President—Mrs. Ralph Fowler, Marietta.

Second Vice-President—Mrs. L. W. Williams, 135 East 45th St., Savannah.

Third Vice-President—Mrs. Richard Binion, Milledgeville.

Recording Secretary—Mrs. Chas. Usher, 6 East Liberty St., Savannah.

: OFFICERS 1943-44

Corresponding Secretary—Mrs. H. H. Askew, 1329 Springdale Road, Atlanta.

Treasurer—Mrs. Lucius N. Todd, Rural Delivery No. 2, Augusta.

Historian—Mrs. W. W. Puett, Norcross.

Parliamentarian—Mrs. Lee Howard, 625 East 44th St., Savannah.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N.W., Atlanta.

PRESIDENT'S REPORT

MRS. J. LON KIN
Macon

Mr. President and Members of the House of Delegates:

The Woman's Auxiliary to the Medical Association of Georgia completes its nineteenth year at this annual meeting.

The theme, "Education and Cooperation in Meeting State and National Needs" has been the compelling factor behind all results, results which are surprisingly good in spite of the tension due to war.

The Executive Board met in three sessions during the year, when plans for the year's program were considered, approved or recommended. The Advisory Committee of the Medical Association is composed of six members, with Dr. James N. Brawner chairman, and Dr. James A. Redfearn, state president. The committee met with the Board at the time of the Sixth District meeting in June, at Dublin, and approved of the program of work for the year.

The Objectives for the year were printed, and with a letter from the President were sent to the entire membership. Copies were also sent to the Presidents and Chairmen of Standing Committees of the National and Southern Auxiliaries, and members of the Advisory Committee to the Woman's Auxiliary. There are thirty-eight counties organized which represent twenty-eight auxiliaries. The total paid membership is 554. There is a loss of 80 members due to war circumstances. The County Auxiliaries held 88 meetings and the districts 11. In counties with camp areas the Army doctors' wives were invited to attend all meetings and take part if they so desired. The chairmen of Health Education, Public Relations, and Visual Education have promoted the Health Educational Program of the Auxiliary. The programs have been presented through radio talks, open meetings for the public, showing of films and programs on Health Problems in local communities. Forty-two programs have been presented to groups of adults, high school and grammar grade students. The programs discussed were: Children's Diseases, Cancer, Syphilis, Proper Clothing, Care of Chil-

dren, Indigent Patients in the Community, Needs of a Community, War Meals for Proper Food Values, Nutrition, Tuberculosis, Milk Problems, Legislation Bills Pertaining to Health Laws, Infantile Paralysis, Problems in City Sanitation and Dental Care. Twenty-six radio talks were made and more than 500 talks were delivered at health meetings, in lay organizations, with an attendance of 10,085. Ten thousand and seventy-five leaflets have been distributed to supplement talks. Emphasis has been on Nutrition and Tuberculosis. The showing of films at meetings has been one of the best ways to promote Health Education. With the cooperation of the Georgia State Board of Health many films have been made available to the public. One hundred and two films have been shown to 28,223 persons. Thirty-four dollars were contributed to the Health Film Library to be used for new films.

The most important effort in the field of Public Relations has been the Emergency War Activities. The Auxiliary members have participated in all branches of the Red Cross and are serving with educational and health groups. The Woman's Auxiliary to the Fulton County Medical Society has organized a Doctors' Aide Corps. This is the first corps of its kind in America. The program was presented to the Woman's Auxiliary to the Southern Medical Association and was adopted. The director of the Doctors' Aide Corps, Mrs. James N. Brawner, Sr., was asked to present the plan to the Executive Board of the Woman's Auxiliary to the American Medical Association last November. It was approved by a committee from the executive board of the American Medical Association, Dr. Olin West, chairman. There are four departments of work: Speakers' Bureau, Health Films Committee, Cooperative Services with the Red Cross and other volunteer agencies, and the Blood Type Registry. Mrs. Edgar H. Greene, president of the Auxiliary, and her members have untiringly developed the program with surprising results. Rooms at the Academy of Medicine have been fitted up into a Health Center, where information on tuberculosis, cancer and nutrition may be obtained. In camp areas the Auxiliary members have provided comforts and entertainment facilities for the soldiers. The Auxiliary cooperated with groups in charge of the campaign of the Woman's Field Army of the American Society for the Control of Cancer,

by making talks before the laity, and in securing memberships. A number of Auxiliary members are assisting in clinics, serving as instructors, in First Aid, Hygiene and Home Care of the Sick and Nurse Aid classes.

Two hundred sixty-eight subscriptions to Hygeia have been secured. Thirty-five have been placed in libraries, white and negro schools, Army recreational centers, and the remainder in doctors' and dentists' offices. The Fulton County Auxiliary was awarded third prize of fifteen dollars in the contest representing group four of the large Auxiliaries. Randolph-Terrell Auxiliaries received honorable mention.

Twenty-six subscriptions to the Bulletin have been reported this year; it is an increase of ten.

The County Auxiliaries and districts have responded well this year with clippings, programs, and pictures for the State Scrapbook.

The files of the Archives are being brought up to date.

The Student Loan Fund began the year with a balance of \$2,439.61. The Auxiliary contributions were \$156.50, and with interest and repayment on loans, the receipts amount to \$3,078.34. Loans were made to the amount of \$500.00 to one applicant during the year, leaving a balance of \$2,578.34. One doctor has completed the payment of his loan during the year.

Eleven histories for the current year are filed with the Historian.

Six articles were contributed to the Library of the Romance in Research of Medicine. These articles have been presented in program form. Health laws before the Georgia Legislature were brought to the attention of the Auxiliary members by its chairman.

Six programs have been presented on Jane Todd Crawford. We contributed \$5 to the Jane Todd Crawford Memorial. This contribution was sent to the Southern Medical Auxiliary.

All revisions necessary to the proper governing of the Auxiliary have been made.

Fifteen Auxiliaries celebrated Doctors' Day, March 30. Many expressions of appreciation were made to the doctors of the State and honor given to the doctors who have died during the year. The State Chairman of Doctors' Day, Mrs. Leonard R. Massengale, compiled an attractive booklet in honor of the doctors of the State and a number of Auxiliaries used them to mail to the doctors on March 30. The Southern Medical Auxiliary was impressed with the booklet and elected our State Chairman to serve as Chairman of Doctors' Day, of the Woman's Auxiliary to the Southern Medical Association.

Mrs. J. Bonar White's awards for the outstanding exhibit and scrapbook were awarded again this year. Auxiliary to the Fulton County Medical Society received \$5 for its Health Center.

The Mrs. James N. Brawner Trophy will be presented to the Auxiliary that has met the greater number of requirements of the current year's work. Baldwin County Auxiliary won it.

Randolph-Terrell Counties Auxiliary received

\$5 for its Scrap Book.

The publicity for the Auxiliary is found monthly in THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA and local newspapers. The chairmen of standing committees are given the privilege of outlining their programs for the year through the pages of THE JOURNAL. We are deeply appreciative of this courtesy.

The report of the year's work is the result of the cooperation of every officer, and chairmen of standing committees and the untiring efforts of the county presidents and the members of the Auxiliary.

Questionnaires were sent to District Managers and County Auxiliaries, from which the report of the year was compiled.

We were represented at the convention of the Auxiliary to the American Medical Association last June in Atlantic City, and also at the Auxiliary to the Southern Medical Association, in Richmond, in November. The Auxiliary President attended the Executive Board of the Woman's Auxiliary to the American Medical Association last November in Chicago. She represented the Auxiliary at the meeting of the Southeastern Social Hygiene Association conference held in Atlanta in February.

The Auxiliary President attended eight District meetings, four County Auxiliary meetings, and served on the State Executive Council of the Women's Field Army of the American Society for the Control of Cancer.

I wish to thank Dr. James A. Redfearn, President of the Medical Association of Georgia, and the Advisory Committee for their constant help and cooperation during the past year. I am deeply grateful for the privilege of having served as President during the year 1942-1943.

Respectfully submitted,
GRACE IDE KING, *President*.
(Mrs. J. Lon King)

MALARIA IN THE WAR AND ITS RELATION TO GEORGIA

(Continued from page 213)

The factors causing the seven-year cycles in peak years of malaria in Georgia are probably many and it is a debatable question as to which is the most important. The temperature-rainfall relationship certainly plays an important role in this phenomenon, other contributors are the mosquitoes, malaria gametocyte carriers and the debatable question of the immunity of the population. Some men think that one of the chief factors is that soon after a peak year the interest in malaria prevention declines and the population becomes careless and the exposure to infection is greater.

The factor of immunity to malaria is highly debatable and if there is an immunity or tolerance to malaria it is individually developed to the particular strain infecting the person. Spontaneous cures occur and many persons harbor malaria parasites without any apparent ill ef-

fects. This is particularly true in the African natives and many of the negroes in our State. This is a tolerance which the Negro develops rapidly to his infection and the black race is much more tolerant to certain than the white race, and as a rule the Negro runs a very mild course of estivo-autumnal.

The medical profession should be on the alert for a flare-up in malaria and should immediately institute the following control measures: (1) Report cases to the Georgia Department of Public Health; (2) isolate the patient behind screens; (3) adequately treat the patient; (4) advise thorough spraying of house each evening to kill any adult mosquitoes trapped therein; (5) take thick blood smears on family and neighbors and (6) advise that they remain behind screens from dark until daylight.

In regard to the treatment of malaria, I recommend an article appearing in the May, 1942, issue of the *American Journal of Tropical Medicine* by Wendell S. Dove, M.D., entitled "The Treatment of Malaria." Dr. Dove was medical director for several of the large oil companies operating in malarious regions of South America and outlines the treatment used in some 30,000 cases of malaria occurring over a two-year period. In this article Dr. Dove outlines the procedures used in treating this disease in all of its most serious complicated phases and evaluates the different drugs used in these various conditions. This article is well worth your reading and any physician treating this disease will probably read and study in detail this article and will derive considerable benefit from his wide experience in the field of the treatment of malaria.

DAVID M. WOLFE, M.D., *Acting Director*,
Division of Malaria and Hookworm Service,
Georgia Department of Public Health.

NEWS ITEMS

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, May 30. Dr. J. K. Fancher read a paper on "Recent Trends in Endocrinology," discussed by Dr. T. L. Byrd; Dr. Martin T. Myers spoke on the "Crippled Children's Program," discussed by Dr. Jos. H. Kite and Dr. Thos. P. Goodwyn. Members who contributed articles to this issue of The Bulletin were: the President, Dr. Geo. W. Fuller, Dr. Grady E. Clay, Dr. Paul B. Beeson and Dr. J. C. Blalock.

Dr. Zach W. Jackson announces the removal of his offices to Suite 620 Doctors Building, 478 Peachtree Street, N.E., Atlanta.

The staff meeting of the Department of Medicine of Grady Hospital, Atlanta, was held on May 23. Reports of cases discussed included "Multiple Myeloma," "Flexner Dysentery" and "Chronic Staphylococcic Granuloma."

The Georgia Medical Society, Savannah, met on May

25. A motion picture entitled "The Diagnosis of Urologic Conditions" was shown. Dr. Walter A. Norton reported two cases, "Inversion of the Uterus."

The Bibb County Medical Society met at Ridley Hall, Macon, June 8. Two motion pictures on "Gastric Surgery" were shown.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, June 3. Dr. Calhoun McDougall spoke on "Highlights of Oto-Laryngology for 1942"; Dr. Joseph C. Massee talked on "Electrocardiogram Studies at Grady Hospital." The discussion was led by Major Bruce Logue, M.C., U. S. Army, and Dr. Evart A. Bancker, Jr.

The Georgia Medical Society, Savannah, met on June 8. Dr. S. F. Rosen showed lantern slides of "Dermatologic Cases." Dr. Everett Bishop spoke on the "Care and Use of the Gas Mask."

The staff of the Department of Medicine, Grady Hospital, Atlanta, met on June 6. Cases discussed included: "Hyperthyroidism," "Peripheral Neuritis," and "Lymphocytic Meningitis."

Dr. James E. Paullin, Atlanta, has been appointed to the Honorary Consultant Board to the Surgeon General of the U. S. Navy. He served as Major in the First World War, past president of the Medical Association of Georgia, president of the American College of Physicians and president of the American Medical Association.

OBITUARY

Dr. John Cox Wall, Eastman; member; Atlanta College of Physicians and Surgeons, Atlanta, 1907; aged 61; died on May 18, 1943, from heart disease. He was born in Macon, moved to Eastman with his parents when about 8 years of age. Dr. Wall practiced medicine in Eastman and the surrounding community for 35 years. For 15 years he operated the Clinic Hospital until he became disabled a year ago. He was held in high esteem by the people of his home town and community, also by the medical profession of the State. Dr. Wall served as Vice Councilor of the Medical Association of Georgia from 1922 to 1927; then Councilor from 1927 to 1935; then served as Vice Councilor until his death. Dr. Wall was a fellow of the American College of Physicians, member of the Eastman Rotary Club, member and elder of the Presbyterian Church. Surviving him are his widow, one son, Lt. J. C. Wall, Jr.; one daughter, Mrs. F. A. Russo, of Eastman. Rev. J. S. Davis officiated at the funeral services conducted at the First Presbyterian Church. Burial was in Woodlawn Cemetery.

Dr. William Everett Rushing, Millhaven; member; University of Georgia School of Medicine, Augusta, 1900; aged 68; died on May 5, 1943, while driving his automobile in Augusta. He was widely known and highly respected by many friends. Dr. Rushing did an extensive practice in Screven and adjoining counties, and was physician for the large Comer plantation.

Dr. Josiah P. Saye, Ball Ground; member; University of Georgia School of Medicine, Augusta, 1883; aged 83; died May 21, 1943, after an illness of several months. He was born in Cherokee County. Dr. Saye has been in active practice for almost 60 years. He was one of the early settlers of Ball Ground and there were only five houses there when he began practice. He rode horseback in the early days of his practice, then traveled with horse and buggy, later used automobiles. Dr. Saye was a member of the Ball Ground Methodist Church and for many years served as a steward. Surviving him are his widow, two sons, Maynard Saye, Ball Ground, and Dr. Ernest Saye, Spartanburg, S. C. Rev. L. B. Linn officiated at the funeral services conducted at the Ball Ground Methodist Church. Interment was in Ball Ground Cemetery. Members of the Cherokee-Pickens Counties Medical Society were honorary pallbearers.

Dr. Charles Oliver Rainey, Camilla; member; Atlanta School of Medicine, Atlanta, aged 60; died on May 14, 1943. He was a prominent physician and was active in civic and religious affairs. Surviving him are his widow, three daughters and one son.

NARCOTIC PRESCRIPTIONS

Recently the Federal Narcotic Agents have been visiting drug stores and finding unsigned narcotic prescriptions in drug stores that were taken over the telephone to be later sent to the physician for his signature.

The Federal Narcotic Agents have stated that they intend to enforce the Harrison Anti-Narcotic Law to the fullest extent and to refresh this law in everyone's mind we are quoting the paragraph which DEALS WITH NARCOTIC PRESCRIPTIONS OVER THE TELEPHONE.

"Furnishing of Narcotic Prescriptions pursuant to Telephone advice is PROHIBITED. (Page 60, Article 90). The furnishing of Narcotics pursuant to the telephone advice of Physician, Dentist or Veterinarian is prohibited whether a Prescription covering such orders is subsequently received or not. Exception:—In an emergency the Pharmacist may deliver such narcotics as are ordered on telephone advice by Physician, Dentist or Veterinarian but they must be sent by a responsible agent of the Pharmacist and the said responsible agent must have in his hand a correctly and properly made out and duly authorized and an authentic Prescription fully covering the narcotic Prescription to be delivered BEFORE he can hand over (deliver) the narcotic as requested by telephone advice and fully covered by said Prescription. The Narcotic Prescription blank as given to the responsible agent of the Pharmacist must be immediately turned over to the Pharmacist and filed by him according to law."

We are sure that all physicians wish to cooperate with both the Federal Government and its druggists, therefore, all narcotic prescriptions should be written and sent to the drug store so that the druggist may give his doctor the best of service and still abide by the Federal Law regarding dispensing narcotics

COMMUNICATION

To the Editor and Sec'y.-Treas.:

The meeting of the Medical Association of Georgia at the Biltmore Hotel May 11-14 left with me a sense of satisfaction which I shall always enjoy due to the splendid cooperation of our membership. Throughout my term of office as president I was impressed by the deep interest in medical organization wherever doctors assembled.

Many doctors have told me in person and by letters that they enjoyed the meeting to an unusual degree. Some thought they had never attended one quite so satisfactory. Surely this has been a test which proves genuine interest in organized medicine among doctors in Georgia.

It is with a feeling of deep appreciation which causes me to express thanks to members of this Association for such splendid help.

To you and your entire staff I again say thank you for your fine assistance.

JAMES A. REDFEARN, M.D.

Albany—May 22, 1943.

THE EFFECTS OF A DIET DEFICIENT IN PARTS OF THE VITAMIN B COMPLEX UPON MEN DOING MANUAL LABOR

By R. E. JOHNSON & ASSOCIATES

*The Fatigue Laboratory, Harvard University and
The Thorndike Memorial Laboratory, Boston City
Hospital*

ABSTRACT

Ten men were subjected to hard daily physical work on a diet deficient in parts of the B complex, notably in thiamine, and adequate in all other respects. During the first week of the experiment five subjects received 2 mgs. of thiamine hydrochloride per day, the other five received no thiamine. During the last week of the experiment, all subjects received daily doses of 18 grams of Brewers' yeast containing 1/2 mg. thiamine.

At the end of one week all subjects complained of easy fatigue and their physical fitness had deteriorated markedly; this was greater in the subjects without thiamine. A majority of subjects without thiamine exhibited symptoms, sometimes acute, of muscle and joint pains, lack of well being, poor appetite and constipation. These symptoms were mild or absent in the subjects receiving thiamine. During the "yeast period", or the second week, all symptoms disappeared, and the usual level of fitness was regained more rapidly and more completely by the subjects who had received thiamine during the first week. Changes in the electrocardiograms of certain subjects in both groups that were noticed at the end of the deficient period had disappeared by the end of the yeast period.

Conclusions: When men are doing hard physical work, even for a few days, there is an imperative need for an adequate daily intake of the vitamin B complex if physical fitness is to be maintained. Thiamine alone will not maintain the physical fitness of laborers in single daily doses of 2 mgs. Whole dried brewers' yeast is a complete and adequate supplement for a diet grossly deficient in the vitamin B complex. When addition of the vitamin B complex is indicated the natural product such as yeast would seem to be a sure source of all the necessary components.—Taken from the *Journal of Nutrition*, Dec. 10, 1942.

MORE HELP FOR MILK-ALLERGIC PATIENTS

Appetizing and nutritious recipes for using Mull-Soy in milk-free diets are now available in a new publication of Borden's Prescription Products Division. Already widely prescribed as a hypoallergenic substitute for milk in infant formulas, Mull-Soy is now proving equally useful in diets of older infants, children and adults who are allergic to milk.

Mull-Soy is an ethically-marketed soybean food in liquid emulsified form. It is palatable, readily digestible, well-tolerated, and easy to use. Although hypoallergenic in most cases of milk allergy, it nevertheless closely resembles milk in nutritional values of protein, fat, carbohydrate, and minerals. Mull-Soy ingredients are entirely of non-animal origin, consisting of soybean flour, soybean oil, soybean lecithin, dextrose, sucrose, calcium phosphate, calcium carbonate, salt, and water. After special processing at carefully controlled temperatures, the mixture is homogenized at high pressure, sealed in sanitary-type cans, and sterilized. In flavor it is slightly sweet and nutlike, and many find it makes a pleasing warm drink when simply diluted with an equal amount of hot water.

Included in the new Mull-Soy recipe folder are numerous beverages, soups, and desserts, as well as directions for using Mull-Soy in place of milk or cream for cereals, coffee, mashed potatoes, etc. Each recipe has been carefully tested in the Borden Experimental Kitchen and checked for palatability, ease of preparation, and suitability for milk-free allergy diets. A number of the recipes have several suggested variations and optional ingredients which permit greater variety in the diet and also make the recipes more useful for patients allergic to other foods in addition to milk.

These Mull-Soy recipe folders are designed for distribution by physicians to their patients. Any desired number of copies may be obtained by writing to Borden's Prescription Products Division, Department CB, 350 Madison Avenue, New York 17, N. Y.

PEDIATRIC ANTIQUES ON TOUR

It has been well said that more progress has been made in pediatrics during the past three or four decades than in all the time before that.

As applied to the feeding part of pediatrics, the Mead Johnson Collection of Pediatric Antiques bears eloquent witness to the great strides made. Without such evidence, it would be difficult, indeed, to imagine our own grandparents being fed from some of these odd-shaped utensils that defied thorough cleaning. To be sure, sterilization and pasteurization were not then in vogue. Not all babies received breast milk in abundance. In the days when wet nurses were common, some of these enterprising women literally did a wholesale business, managing to nurse three or four infants.

The baby's cereal of a century ago was simply stale bread lightly boiled in water, wine or beer. Butter or sugar might be added but the use of milk was regarded as fraught with danger. It was thought, according to Dr. T. C. H. Drake, "Milk might bring on the watery gripes, or the infant might imbibe with the milk the evil passions and frisky habits of the animal supplying the milk."

From a personal hobby enjoyed by the late E. Mead

Johnson, Jr., the Collection of Pediatric Antiques, illustrated in the pages of a catalogue just issued, has evolved into one of considerable historical importance, depicting as it does the progression of infants' feeding vessels from the Greece of twenty-five centuries ago down to time within our own memory.

The Collection has been steadily growing in size and scope and is of increasing interest for teaching purposes via the historical route. The destruction of original sources caused by the war tends to add to the value of these objects.

Hence it is that, by request, the Collection now goes on an annual pilgrimage to colleges, hospitals, museums, libraries and other institutions of learning. Arrangements may be made for "stop-overs" upon application to the curator, Mead Johnson & Company, Evansville, Indiana, U. S. A.

INVALID DIETS AND FOOD RATIONING

Of interest to all who are concerned with diets for invalids in Ration Order 13, issued by the Office of Price Administration under date of February 9, 1943. This order covers all canned, dried, and frozen fruits and vegetables. Article II, Section 2.5 of the order reads as follows:

"Consumers who need more processed foods because of illness may apply for more points. (a) Any consumer whose health requires that he have more processed foods than he can get with War Ration Book Two, may apply for additional points. The application must be made on OPA Form R-315, by the consumer himself or by someone acting for him, and may be made in person or by mail. The application can be made only to the board for the place where the consumer lives. He must submit with his application a written statement of a licensed or registered physician or surgeon, showing why he must have more processed foods, the amounts and types he needs during the next two months, and why he cannot use unrationed foods instead.

(b) If the board finds that his health depends upon his getting more processed foods, and that he cannot use or cannot get unrationed foods, it shall issue to him one or more certificates for the number of points necessary to get the additional processed foods he needs during the next two months."

The application form referred to above, OPA Form R-315, is apt to be somewhat confusing to patients. It is titled "Sugar Special Purpose Application" and was developed primarily to meet the need for home canning. It is being used temporarily, until a more adequate form can be gotten out.

It is anticipated that the procedure indicated in Section 2.5 above may be changed somewhat in the future, in which case due notice will be provided.

NEW G-U ANALGESIC AND ANTISEPTIC INTRODUCED BY SQUIBB

A new analgesic and antiseptic for use in genitourinary conditions has been added to the line of E. R. Squibb & Sons under the name, "Cajandol." A preparation of 5 per cent oil of cajeput dissolved in peanut oil, with 0.1 per cent propylparahydroxybenzoate as preservative, Cajandol was developed at the Brady

Urological Institute, Johns Hopkins Hospital, and has been in use there during the past several years.

Clinical experience has shown that Cajandol alleviates pain and distress due to instrumentation and fulguration. It is also beneficial in many types of acute and chronic cystitis and other pathologic conditions of the bladder.

In treating these conditions, 10 to 15 cc. of Cajandol are instilled into the bladder through a catheter at daily or bi-weekly intervals. In a few cases, Cajandol has been injected up the ureter during the use of the Council stone extractor and has facilitated withdrawal of this instrument when there has been difficulty due to spasm of the ureter.

Cajandol is supplied in one-pint bottles only.

PRENATAL BLOOD TEST LAW

(Continued from Page 208)

sentence, word, or any part of this Act shall be held to be unconstitutional or invalid, then that part shall not affect or destroy the validity or constitutionality of any other section, provision, clause, or part of this Act which is not in and of itself unconstitutional or invalid, and the remaining portions of this Act shall be enforced without regard to the provision, clause, or part so held to be invalid or unconstitutional.

SECTION 8

That all laws and parts of laws in conflict with this Act be and the same are hereby repealed.

SECTION 9

That this Act shall become effective and in force on July 1, 1943.

Approved 18th day of March, 1943.

TROPICAL MEDICINE

The medical advisory committee of The American Foundation for Tropical Medicine, Inc., authorized grants to six North American medical schools totalling \$26,100 during the first quarter of 1943, according to a report by Dr. J. A. Curran, executive director, at a meeting of directors of the Foundation in New York City on April 14.

These grants, made possible by contributions and pledges for the current year of \$60,100 by nineteen American corporations, are being used to strengthen teaching or research programs in tropical medicine and parasitology at the various schools. The approved projects were selected by the medical committee among a number of applications.

Medical schools to receive aid were: New York University, College of Medicine; Tufts College Medical School; Tulane University School of Medicine; University of Manitoba Faculty of Medicine; University of Nebraska College of Medicine and Yale University School of Medicine.

Companies which have made contributions or formal pledges of support include: Abbott Laboratories; American Cyanamid Company; Ciba Pharmaceutical Products Corp.; Firestone Plantations Company; General Foods Corporation; Hoffman-La Roche, Inc.; The Lambert Company; Lederle Laboratories; Eli Lilly and Company; Merck & Co., Inc.; National Carbon Company; Parke Davis and Company; E. R. Squibb & Sons; United Fruit Company; William R. Warner & Company; Win-

throp Chemical Company; Winthrop Products, Inc.; and John Wyeth & Brother.

Other applications are pending, Dr. Curran reported, and those which are approved will be financed out of contributions.

The Foundation's program, adopted at the annual meeting of members in January, calls for the collection and disbursement of \$100,000 among medical schools and scientific journals and for special projects which fall within the scope of the Foundation's activities. Dr. Curran stated that the full sum of \$100,000 will be needed to complete the current program of aid.

The officers of the Foundation are: President, Lt. Col. Thomas T. Mackie, Executive Officer, Division of Parasitology and Tropical Medicine, Army Medical School; Vice-President, Dr. Willard C. Rappleye, Dean, College of Physicians and Surgeons, Columbia University; Secretary, Mr. Alfred R. Crawford, Assistant to the President, Long Island College of Medicine; Treasurer, Mr. W. W. Lancaster, Partner, Shearman and Sterling; and Executive Director, Dr. J. A. Curran, President and Dean, Long Island College of Medicine.

Members of the Executive Committee, in addition to the above officers, are: Dr. Theodore G. Klumpp, President, Winthrop Chemical Company, Inc., and Dr. Henry E. Meleney, Professor of Preventive Medicine, New York University College of Medicine.

The purposes for which the funds granted are being utilized are as follows:

Manitoba—Travelling fellowship for professor of parasitology and tropical diseases.

New York University—Salary aid for full-time instructor in tropical medicine and parasitology.

Nebraska—For full-time technical assistant to assist teaching in student laboratories and staff research.

Tufts—To employ clinical teaching fellow in tropical medicine.

Tulane—Budgetary needs of Department of Tropical Medicine which has trained 41 physicians from Central and South American countries, from Africa and from Asia since 1940.

Yale—To supplement salaries of teachers and laboratory assistants in order to expand tropical medicine teaching.

RUSSIAN WAR RELIEF, INC.

Election to the Board of Directors of Russian War Relief of Dr. Hugh Cabot, noted surgeon and chairman of the Massachusetts Committee of Russian War Relief.

Dr. Cabot, who has been chairman of the Massachusetts Committee of Russian War Relief since its inception in November, 1941, is consultant to the purchasing committee of the war relief agency on the type of medical supplies to be shipped to the Russian front. He has kept in close touch with Soviet medical needs by correspondence with Chief Surgeon Nicolai Burdenko, head of the Soviet Medical Corps, and other Russian medical authorities.

Dr. Cabot, who was decorated for his work with the British Royal Army Medical Corps in the first World War, has advocated that an American committee, composed of representatives of the Army and Navy medical corps and outstanding civilian physicians, be formed to exchange medical information with the Russians. The

Russians, he maintains, led the world last year in the treatment of battle casualties and in preventive measures to forestall war-bred epidemics.

Many other men high in public positions are members of the Russian War Relief, Inc.

ALABAMA VOTES MEDICAL SCHOLARSHIP PER COUNTY

Montgomery, Ala., May 19. (AP)—The Alabama senate passed a bill today to establish a four-year medical school and provided for granting a scholarship of \$400 to one student from each of the state's 67 counties.

—Atlanta Constitution, Atlanta, May 20, 1943

THERE HAVE BEEN RUMORS THAT PABLUM IS OFF THE MARKET

Pabena, the new Pablum-like precooked oat cereal, does not replace Pablum. Pabena is now being marketed in addition to Pablum.

Pabena offers substantially all of the nutritional qualities of Pablum and all of its advantages of ease of preparation, convenience and economy. The base of Pabena is oatmeal (85 per cent) which gives it a fine flavor and offers variety to the diet.

Would you like some of both for use in your own family?

Mead Johnson & Company, Evansville, Ind., U. S. A.

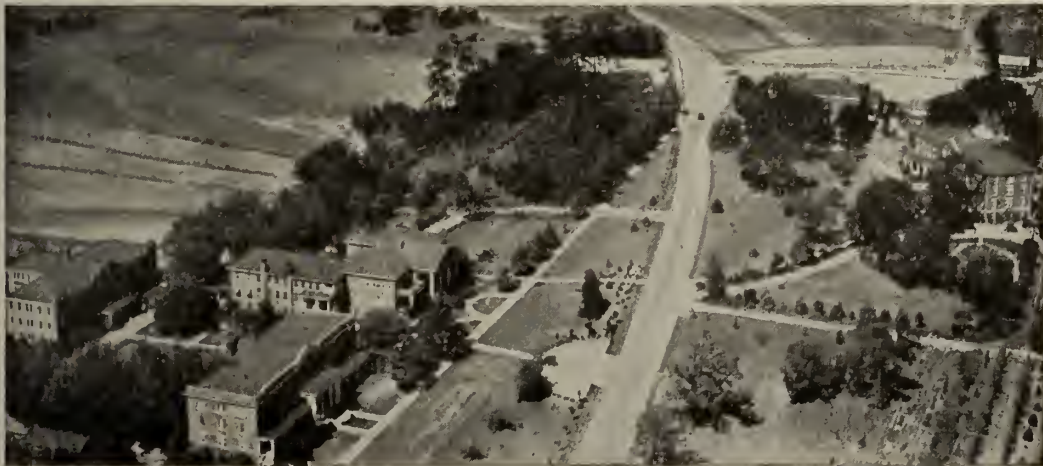


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Write us when referring ambulant patients, we will take especial pains to prepare proper diet and care for them.

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FOR NERVOUS AND MENTAL DISEASES

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Department for Women

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Delicious and Refreshing

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

VOL. XXXII

Atlanta, Georgia, July, 1943

Number 7

SYMPOSIUM ON SURGICAL PROBLEMS

THE PROBLEMS CONCERNED IN DECREASING PAIN IN ANO- RECTAL SURGERY

MARION C. PRUITT, M.D.
Atlanta

It is my object in this paper to make a simple and direct discussion of the cause and prevention of pain in anorectal surgery. What I have to say is rather dogmatic and will bring forth variations of opinion.

Pain is the common symptom of anorectal lesions that brings the patient to the doctor. Operation is often the means of relieving this pain.

Postoperative pain is the greatest fear the patient has against operation. Much can be done through the use of the available knowledge concerned in the problems of preventing or decreasing pain in anorectal surgery. For convenience of discussion this knowledge will be divided into the "Don't's" and the "Do's."

"Don't's"

I shall discuss what not to do first and begin by saying: Don't ever forget that next to the eye the anus, including the anorectal junction, is the most painful area of the body. Lack of familiarity of the surgeon with the anatomy of the part may cause much grief, both to the patient and to the doctor.

Don't place the patient in a posture that prevents you from seeing what you are doing, or interferes with the patient's relaxing. It has taken years for some surgeons to learn that there is a better posture for

examination, treatment, or operation of rectal diseases than to have the patient flat on the back with the legs flexed on the abdomen or leaning prone over the table. Both are awkward and unsatisfactory positions.

Don't make a stab wound for drainage and then pack and repack the opening to prevent drainage; the placing, the retaining, the removal, and the repacking all cause pain. Make an incision, when possible, sufficient to make packing unnecessary, except for control of postoperative bleeding, and in some cases to prevent closing or bridging of tissues before they have time to fill in from the bottom.

Don't leave packs or drains placed in the anal canal longer than 24 to 48 hours, especially if gauze is used, as the new tissue tends to infiltrate into the mesh of the gauze and then its removal tears up the new granulation tissue; moreover the packing prevents the passage of gas and causes distention and pain. The pack or drain also acts as a foreign body in the anal canal and increases sphincter spasm, pain, and tenesmus until it is removed or expelled.

Don't use a large rubber tube wrapped with vaseline gauze or the so-called "whistle" after a hemorrhoidectomy, and allow it to remain in the rectum for four days or be passed at the first bowel movement. This increases pain and tenesmus. Even though the sphincter is relaxed at the time of operation, it soon begins to regain its tone, and sphincter contraction is nature's effort to expell the foreign body; each contraction causes a cutting or grabbing sensation in the anorectal region. Leave the "whistle" to be used on your enemies.

Don't use irritating antiseptic solutions such as bichloride, cyanide, alcohol, iodine, etc., in treating or dressing open lesions as

they sometimes cause pain, and burn for hours after application.

Don't use preoperative soapsuds enemas. Try suds in your eye; if it does not make you cry, then you can use it as an enema. The irritation of the mucous glands caused by soapsuds enemas shows marked crying of the mucous glands, an expression of the tissue of such harsh treatment; this irritation tends to cause postoperative distention and discomfort.

Don't divulge the sphincter in cases that have a short anal canal and a very relaxed muscle for fear of fecal incontinence; but in cases where there is marked sphincter spasm, hypertrophied sphincter muscle, small anus, or a long anal canal don't fail to do a divulsion, and in some cases also do a posterior proctotomy sufficient to give relaxation and plenty of room for elimination. This shortens convalescence and helps to prevent postoperative pain.

Don't place too much emphasis on some "pet" operation. The operative technic that causes least pain follows the general surgical principles of the avoidance of excessive trauma, clamping, crushing or choking of tissue that is not being removed. In anorectal lesions give adequate drainage by carrying the incisions well out on the anal margin and removing excessive skin folds. Whether you trim the skin folds from without inward or from within out makes little difference. Avoid skin sutures, especially in inflammatory conditions.

Don't fail, in anorectal infections, to excise all blind sinuses leading from the anal crypts. They are a common cause of prolonged rectal pain and discomfort until corrected.

Don't do an operation that removes, along with the pile bearing area, all the anal mucosa; for example, the Whitehead operation. This removes the nerve endings that control the sensation of defecation, a loss of which may mean partial incontinence, often a stricture at the ring of excision, delayed healing, and prolonged pain and discomfort to the patient.

Don't use a suture that will not be absorbed soon after its function is complete. The function of the suture in anorectal

surgery is to control hemorrhage and approximate tissue. After three or four days its function in controlling hemorrhage is complete, and in many cases it is not needed for approximation of tissues. After its function is complete it is only a foreign body in the tissue and may become a nidus for a focus of infection and in this way cause pain and sloughing of tissues.

Don't tie large masses of tissue choking the blood supply and causing edema, pain, and often slough of the tissue.

Don't use large or excessive sutures. Number one plain catgut is absorbed in 5 to 10 days. It lasts long enough to serve the function of hemostasis, and it is sufficient in size to prevent cutting, and if not tied too tight, to prevent sloughing of tissues.

Don't clamp or traumatize tissue that is not to be removed.

Don't treat acute inflamed, strangulated, thrombosed, irreducible, internal hemorrhoids as an emergency operation. Use sulfathiazole and other palliative measures until the acute infection and edema subside. This makes less pain and risk to the patient, shortens convalescence, and permits operation at the time of election.

Don't use a posture that does not give a good exposure during the operation. Personally, I prefer the "jack-knife" posture.

Don't kill time while the patient is under anesthesia. Have everything ready before, and when the patient is asleep sufficiently to give relaxation do what operation is to be done without wasting time. A long anesthesia increases the discomfort of the patient. Nausea and vomiting increase pain in anorectal surgery. Pentothal is probably just as effective and causes the least reaction of the general anesthetics.

Don't wait, as a rule, to do a sigmoidoscopy until the patient is under the anesthetic. In children or in acute inflammatory lesions it may be necessary to wait until the patient is under the anesthetic because of lack of cooperation or pain.

Don't mistake pain from a distended bladder for a rectal condition. This should be differentiated by percussion over the suprapubic region and careful questioning

of the patient as to the voiding. Catheterization and not morphine is the treatment for retention of urine. Morphine may relieve the pain by allaying the muscular spasm temporarily, but in this action it tends to increase rather than relieve the retention. Even the preoperative hypodermic tends to retention. The common cause of retention is the reflex stimulated by the pain from anorectal operation. This is greatly increased in nervous patients. Retention may be the chief cause of pain and discomfort and it is difficult to differentiate from the anorectal pain caused by operation, except by catheterization.

Since the injection treatment of hemorrhoids is a surgical procedure I would say: Don't inject hemorrhoids unless you are familiar with the anatomy of the parts, and remember that only internal hemorrhoids without complications are suitable for injection treatment. Much pain and complications will follow unless this rule is followed. But don't be over-enthusiastic. This method is often spectacular in results when used in suitable cases.

"Do's"

Under the "Do's" I would say whatever you do: Do be gentle in manual and in instrumental manipulation. The degree of pain and discomfort in making anorectal examinations, topical applications, and postoperative digital dilatations can be greatly decreased through the use of lubricants and slow, gentle manipulation, which gives time for sphincter relaxation and allaying of anal spasm. The lubricated cotted finger should be passed before any instrumentation is tried. This will determine the kind and size of instrument that can be passed.

The finger should be passed after completion of a hemorrhoidectomy to be sure that there is no constriction or puckering by suture. Excessive, irregular perianal skin folds should be trimmed away leaving a smooth, well-shaped anal outlet, as bridging, constriction, or lack of drainage are often the causes of postoperative pain.

Preoperative care decreases postoperative pain. Postoperative "gas" pains in any surgery is one of the dreads of the patient and much can be done to minimize this

condition. Operation on a loaded rectum and colon means postoperative pain from abdominal distention, gas pains, early bowel movement or a chance for a fecal impaction, increases the chances for infection, all of which increases postoperative pain and prolongs convalescence.

Use a non-irritating enema (plain water, soda or saline) repeated until the solution returns clear 6 to 12 hours previous to operation. This leaves the colon and rectum empty and a dry field for operation.

Remember postoperative nausea and vomiting may be due to the allergic reaction of the preoperative and postoperative hypodermics of morphine. Vomiting adds much to the discomfort of the patient. In these cases if something is necessary for pain morphine should be changed to pantopon, dilaudid, codeine, or one of the soluble barbiturates.

In acute inflammatory lesions often much pain and valuable time are saved by giving sulfathiazole orally and locally 3 to 5 days before operation to control the acute condition.

I am firm in my conviction that acute inflammatory conditions, other than for drainage, is a contraindication to a radical operation until the acute inflammatory condition subsides.

Sulfathiazole dusted and rubbed into the wound at the time of operation is very effective in inhibiting pain by preventing edema and infection.

If a local anesthesia is to be used I like 1/1000 nupercaine solution. The duration of anesthesia is from 4 to 12 hours. This is usually sufficient to prevent pain and tenesmus in opening of an abscess, excision of thrombosed external hemorrhoids, skin tags, or other small simple lesions. In internal and combined hemorrhoids this anesthetic is not sufficient in duration to prevent postoperative pain completely, but it is of much value.

Supportive prolonged local anesthesia such as oil-soluble anesthetic agents, quinine urea hydrochloride, diathane, nupercaine, alcohol, etc., aid much in preventing postoperative pain and tenesmus. The disadvantage of these agents, if used too liberally, is prolonged convalescence and de-

lay in healing as expressed in postoperative skin tabs. in anorectal operations. and in this way may cause rather than inhibit pain. Also temporary incontinence may follow their use. Occasional sloughing of tissues or inflammatory conditions or an abscess may follow. Judiciously used they become very valuable agents in preventing pain.

For the last two years I have been very pleased with the results obtained by the injection subcutaneously around the anus and into the external sphincter muscle of 2 to 3 cc. of a 20 per cent solution of ethyl alcohol in water, using not more than 3 or 4 m. to an area. This gives a prolonged supportive anesthesia, which varies from a few days to two or three weeks. Dr. W. E. Person uses a 25 per cent alcohol solution as a prolonged anesthetic. I have found that a 20 per cent solution is sufficient and has less risk of sloughing.

After a hemorrhoidectomy a digital examination should be made on about the third, fifth, and tenth postoperative days to prevent bridging or constriction. The giving of a hypodermic about one hour before the time of examination aids much in relaxation, decreases pain for the patient, and facilitates a much more thorough examination and if necessary a stretching of a constriction.

"Cleanliness is next to Godliness." Strange to say, but it is a fact nevertheless, that it is not uncommon to find the anal region sadly neglected. In no condition is cleanliness more essential than in anorectal surgery.

Postoperative daily hot applications and hot sitz baths, beginning on the second or third day, decrease edema, cleanse the parts, shorten convalescence, and make comfort for the patient.

In conclusion, whatever you do, be gentle; ever remembering that next to the eye the anus, including the anorectal junction, is the most painful area of the body. If this adage is followed the fear of postoperative pain in anorectal surgery will largely disappear.

The Wartime Conference and the 72nd Annual Business Meeting of the American Public Health Association will be held in New York City, October 12-14. Hotel Pennsylvania will be headquarters.

THE FREQUENT ASSOCIATION OF THYMIC LESIONS WITH MYASTHENIA GRAVIS

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The exact function of the thymus in the development and life of the individual has remained obscure despite a vast amount of research studies. It has been considered to be a gland of internal secretion and also as a unit of the chromaffin system. Hyperplasia of the spleen, thyroid and genital organs and disturbances of general nutrition and development followed its removal in experimental animals. Normally the organ reaches its greatest weight at the time of puberty after which involutional changes involve an increasing amount of the gland but some functioning tissue is present throughout life.

Interest in the thymus from the standpoint of surgery begins early in life with consideration of a syndrome, first described in 1889 by Paltauf, which has since been named status thymicolymphaticus. Enlargement of the thymus along with hypertrophy of all lymphatic tissue are characteristic of this condition, and sudden death due to suffocation occurred in many infants following minor or trifling injuries and operations. Other patients with less serious symptoms of tracheal obstruction have been treated by thymectomy but radiation therapy has been found to be equally effective by causing almost immediate regression of the thymic enlargement. Evidence of the effect of persistence of the thymus has been noted in adults up to the third decade when it has been the only significant autopsy finding after inexplicable deaths usually following operation or injury.

Tumors are known to involve the thymus but remarkably few have been detected and removed during the life of the patient. By far the majority of benign tumors have been found in association with myasthenia gravis probably because of the known relationship between these conditions. Consid-

Read before the Medical Association of Georgia, Augusta, May 1, 1942.

erable uncertainty exists concerning the exact origin of mediastinal tumors that might have arisen in the thymus. The position, shape, definite morphology, and connection with thymic rests are characteristics that have been considered of most diagnostic value. To these Foot has added the failure to invade bone, the tendency to spread by extension, and the failure to metastasize below the diaphragm. Classification of malignant tumors of the thymus is likewise difficult but the one proposed by Ewing is most widely accepted, i.e., thymoma or lymphosarcoma, carcinoma, and sarcoma. Only 208 cases had been recorded up to the time of a recent review.

The association of enlargement of the thymus and goiter has been noted by many observers and this has been particularly common in Graves' disease. Moebius in 1818 first reported thymic enlargement in a case of exophthalmic goiter, and the incidence has since been observed to vary from 66 to 100 per cent. In cases of adenomatous goiter with toxic symptoms, the incidence was noted to be slightly lower (50 per cent). In 1911 Garre first performed thymectomy in such a patient and this was followed by a complete cure. Up to 1922 Crotti observed thymic enlargement in 75 out of 500 patients who had thyroidectomy performed for toxic goiter but it is interesting to note that after the reintroduction of iodine at about this time by Plummer, the thymus was found enlarged only once in 129 operations. Observations at autopsy in cases of sudden postoperative deaths following thyroidectomy have revealed an unusually large thymus in a large percentage of cases.

A noteworthy coincidence is the fact that one of the first demonstrated relationships between thymus and myasthenia gravis occurred in a patient who also presented symptoms of Graves' disease. Schumacher and Roth in 1913 reported a case treated first by thymectomy which was followed by marked improvement of the myasthenia gravis but thyroidectomy was required later to cure the symptoms of thyrotoxicosis. In 1913 von Haberer observed a patient with hyperthyroidism associated with severe choking. Thyroidectomy was performed without influencing the choking but

this was entirely relieved after removal of the thymus.

Surgical interest in the thymus has received considerable impetus during recent years because of the increasing number of cases of myasthenia gravis in which an associated lesion of the thymus has been demonstrated at operation or autopsy. In a current article one of us (D.H.P.) has analyzed a total of 129 autopsies and operations in cases of myasthenia gravis and noted that thymic abnormalities were found in 71 instances, a percentage of 55.04.

Up until the summer of 1941 all operations were performed because of evidence of tumor of the thymus. The most remarkable patient in this group was the one reported by Blalock, Mason, Morgan and Riven in 1936 who apparently is cured of all symptoms of myasthenia gravis up to the present time (6 years after operation). The tumor in this case was noted to be benign as has been the case in all thymic tumors removed at operation during the course of the disease. However, autopsy studies reveal evidence of malignant thymic tumors in 4 instances of patients who also had myasthenia gravis.

Feeling that more than a casual relationship exists between thymic lesions and myasthenia gravis, Blalock and his associates have attempted to influence the course of the disease by removing all and any thymic remnants. In a series of 6 cases the thymus was removed and found to be enlarged or hyperplastic in 5 instances. Three of these patients have shown definite measurable improvement and less marked changes in 2 others but more time will be required to evaluate the results properly since remissions are known to be characteristic of this bizarre disease.

Report of Case

(History by H.A.S.) Early in 1941 the patient was first seen when he developed an acute respiratory infection resembling influenza which continued for 10 days. Following this illness, he noted marked difficulty in swallowing, weakness of his tongue, and incoherence of speech after sustained effort, and an increased amount of mucus which at times regurgitated into his nose. On March 28, 1941, he was examined by Dr. J. G. Lysterly of Jacksonville, Florida, who made a diagnosis of myasthenia gravis on the basis of the physical findings and the history which dated back 2 years. At that time some drooping of the left eyelid and weakness of the muscles of the left side of the face had been noted.

Following this a slight weakness of swallowing and difficulty in speech caused him to consult a rhinolaryngologist without benefit. These symptoms disappeared after 6 weeks and 2 months later the patient successfully went through the ordeal of an appendectomy. The next occurrence of symptoms of myasthenia gravis followed the respiratory infection in January, 1941. Prostigmine was administered in April, 1941, followed by characteristic improvement but the drug soon caused severe gastric distress. Ephedrine was substituted with satisfactory effect.

The patient was examined by Drs. E. P. Lehman and W. B. Porter in May, 1941, who suggested the possibility of the association of a thymic tumor, and roentgenograms confirmed this impression. The shadow of a sharply circumscribed mass could be seen at the level of the 3rd, 4th, and 5th costal cartilages directly behind the sternum.

In June, 1941, swallowing became extremely difficult and all food and liquids were regurgitated through the nose. Nasal feedings became necessary along with continuous suction to remove excess mucus. Slow improvement followed the administration of prostigmine and ephedrine.

Consideration of the removal of the tumor in the anterior mediastinum prompted consultation with Dr. Henry Poer and operation was performed Aug. 16, 1941. A soft, well encapsulated tumor approximately 5 x 8 x 6 cm. was removed from the thymic area. Following operation, the patient went through two "sinking spells" which required large amounts of prostigmine. Convalescence otherwise was uneventful.

For 6 months the patient had practically no symptoms of myasthenia gravis and took ephedrine only at irregular intervals. Early in 1942 difficulty in swallowing and talking were noted again and these have persisted up to the present time. Prostigmine has been resumed using belladonna to prevent gastric irritation. The diagnostic test, using prostigmine and atropine as described by Viets and Schwab, was strongly positive when examined in March, 1942, as was the fluoroscopic observation of the swallowing effort.

While definitely benefited by the removal of the thymic tumor, symptoms of myasthenia gravis are still present at this time.

Comment

A proven case of myasthenia gravis was observed to have a mediastinal tumor which was successfully removed. This tumor has the characteristics of malignancy of the thymus and has been classified as a carcinoma of low-grade activity. While improvement of all symptoms of myasthenia gravis was noted for 6 months following operation, these have returned in milder form, and daily administration of prostigmine is now required. A seasonal connection has been noted since the first symptoms appeared in the middle winter months and became more severe in the spring months during the past three years.

TOXIC GOITER

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Goiter is a disease of unknown cause, the most common characteristics of which are disturbed function and enlargement of the thyroid gland.

Classification of goiters, as adopted by the American Association for the Study of Goiter, follows:

1. Diffuse nontoxic goiter.
2. Diffuse toxic goiter.
3. Nodular nontoxic goiter.
4. Nodular toxic goiter.

The above classification will cover approximately 98 per cent of all goiters, and is in keeping with the present-day knowledge of the pathology and physiology of the thyroid gland. I think it wise to mention some of the well known types of goiter and show their place in this classification.

1. Diffuse nontoxic goiter includes adolescent, endemic and colloid types.
2. Diffuse toxic goiter includes exophthalmic, Graves' disease, primary hyperthyroidism, hyperplastic goiter, and acute hyperthyroidism.
3. Nodular nontoxic goiter includes nontoxic adenoma, fetal adenoma, carcinoma, cystic, hemorrhagic and the so-called "simple goiter."
4. Nodular toxic goiter includes toxic adenoma, adenoma with hyperthyroidism and chronic hyperthyroidism.

Differential diagnosis between:

Hyperthyroidism

Other Conditions

Enlarged thyroid gland —	The physiologic enlargement of adolescence, pregnancy and menstruation.
	Thyroiditis. Malignancy.
Nervousness and tachycardia —	Neurocirculatory asthenia. Infections and their sequelae.
Loss in weight —	Tuberculosis. Diabetes. Malignancy. Effects of weight reducing diets and drugs.
Heat intolerance —	Hot flashes of menopause. Few conditions causing increased metabolism.
Exophthalmos present in 55 per cent of patients —	Intracranial pressure. Intraorbital pressure. Familial exophthalmos.

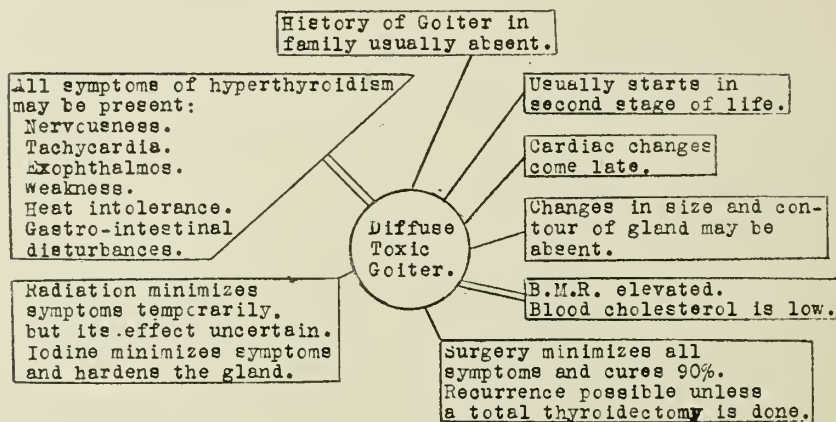
Tremor —	Familial tremor. Poisons. Alcohol. Tobacco. Diseases of central nervous system.
Muscular weakness (quadiceps) —	Any debilitating disease, non-selective.
Elevation of B.M.R. —	Terminal cardiac disease. Some of the blood dyscrasias, such as leukemia. Interference with the sup- rarenals, as in hyperne- phroma.
Neurocirculatory asthenia, most often confused with hyperthyroidism.	
<i>Differentiation</i>	
Hyperthyroidism —	Neurocirculatory asthenia (syndrome).
Changes in thyroid gland —	Absent except in the pa- tient's imagination.
Nervousness —	Nervousness.
Tachycardia —	Varies with emotions and disappears during sleep.
Tremor (fine) —	More likely to be coarse.
Muscular weakness (selective) —	Non-selective muscular (General).
Exophthalmos in majority of patients.	Absent.
Loss in weight —	Continuous underweight.
Heat intolerance —	Absent. Rather the re- verse, cold hands.
B.M.R. elevated —	Normal.
History —	Nervous instability in childhood. Very often history of nervous insta- bility in family.
Patient usually attempts to answer questions truth- fully.	Patient inclined to exag- gerate, when asked one question usually answers several.
Lugol's solution hardens the thyroid.	Has no effect on the gland.
Lugol's solution improves patient's condition.	Patient's condition not affected.
Result of surgery almost miraculous.	Surgery a great disappoint- ment, patient's symptoms worse than before.

Dr. Arthur E. Hertzler in his new book "Diseases of the Thyroid Gland" refers to toxic diffuse goiter as the "acute goiter of Davison" and nodular goiter as the "chronic goiter of Davison," since I was the first one to use the terms *acute* and *chronic* in reference to hyperthyroidism. Hyperthyroidism may be due to diffuse toxic goiter, or to nodular toxic goiter. Toxic diffuse goiter may at times be very acute, since it often is precipitated by psychic shock, accident or injury. The symptoms may have been present from a few days to several months before the patient consults the doctor, while the toxic goiter is more of a chronic nature, having been present for a long time, often for several years. According to the Mayo Clinic, the average time which a nodular goiter has been known to exist before consulting a doctor is sixteen years, and when they do come, it is usually for cardiovascular symptoms, which may predominate.

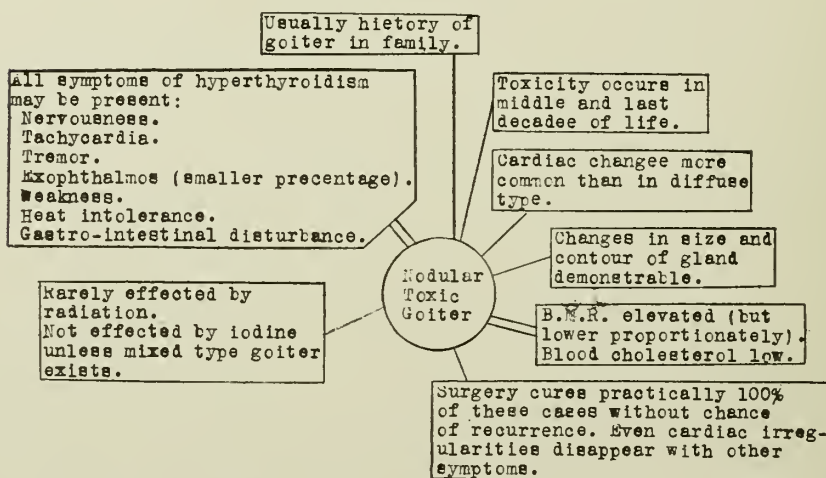
In addition to the clinical picture of hyperthyroidism, there is usually elevation of the B.M.R.; this is more pronounced in diffuse goiter than in the nodular type, but elevation of the B.M.R. is not essential, nor is it always present in hyperthyroidism. In the chronic type of cases which have developed slowly over a period of years, the B.M.R. may be normal or even below normal, and yet when these cases are operated upon they are usually relieved of their symptoms.

The B.M.R. is such a delicate test, it is easy to miscalculate, and often the reading does not agree with the clinical findings. I have used the blood cholesterol as an indication of thyroid toxemia in recent months. In this test it is not necessary that the patient fast or rest for twelve hours, and the test is not so delicate and can be performed more quickly, and I consider it almost equally as reliable as the B.M.R. In questionable cases I have both tests made.

There is no medical treatment for toxic goiter, other than to prepare the patient for surgery; it is strictly a surgical condition, still many medical men hold on to them and treat them indefinitely promising and hoping for a cure just as some medical men try to "dissolve" gall stones, while others still



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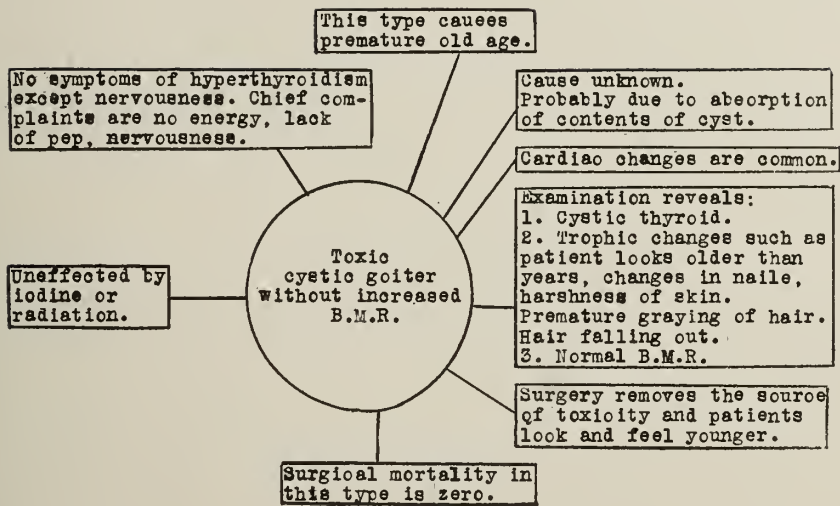
Double lines used where same characteristics obtain.

treat acute appendicitis with castor oil. The modern internist and the surgeon should co-operate in handling toxic goiter. The internist should prepare the patient for surgery, and after the operation, the surgeon should send the patient back to the internist who should continue to treat and observe the patient for at least one year after operation.

The pre-operative treatment varies according to the type of goiter and also as to the degree of toxicity. In diffuse toxic goiter, the patient should be put to bed, at rest physically and mentally; should be given a high carbohydrate diet, should be given iodine in the form of Lugol's solution, 10 drops three times a day, and sufficient sedative either phenobarbital or bromides, to produce rest and sleep. In some cases I have given sodium iodide solution intravenously for a hurried preparation for surgery, give 1 gram the first day, 2 grams

the second day and repeat 2 grams the third day, and then operate. It requires usually about two weeks to prepare the average case for surgery with Lugol's solution, but each patient must be a law unto himself and should be judged by the clinical improvement. In nodular toxic goiter, iodine has very little effect, but I usually give it along with the sedative, as in some cases there is a mixed type of goiter, there being some true proliferation of thyroid tissue along with the adenoma and the iodine does no harm, *unless given too long*. I have seen some cases of nodular goiter harmed by taking iodine over a long period of time, and what may have been a nontoxic adenoma was converted into a mixed type goiter with marked toxemia, tremor, rapid heart and exophthalmos. The surgeon should be the one to say when the patient is ready for surgery, since it is his responsibility.

Formerly, I used local anesthesia almost



exclusively in operating upon goiters but for the last three and one-half years I have used pentothal-sodium-oxygen anesthesia, it is so much easier on the patient and on the surgeon, and it is so pleasant from the patient's standpoint. In very acute toxic goiter the patient may be given either glucose or vitamins intravenously daily for several days, and then on the specified day, pentothal-sodium is given and the patient taken to the operating room where the anesthetic is continued and oxygen is administered with it; in this way we avoid the excitement which usually accompanies operation in the acute toxic patient.

I will not include in this paper the technique of operating, but wish to state that in diffuse toxic goiter there used to be a high per cent of recurrences because when a portion of the diseased gland was left, the patient continued to be toxic to that extent. He or she would be much benefitted by the operation, but not entirely relieved, and the gland tissue which was left would continue to hypertrophy or proliferate and in time there would be another goiter with a recurrence of toxic symptoms. After operating on diffuse toxic goiters, the patient should always be given iodine in some form for a few days. I usually put Lugol's solution $\frac{1}{2}$ to 1 dram in 1,000 cc. of saline and glucose, and administer subcutaneously; but do not give it intravenously. Should the condition be urgent, these clyses are re-

peated every six or eight hours until the symptoms are under control.

In recent years I have been performing total thyroidectomy in these patients and am now getting better results. Formerly it was thought that total thyroidectomy would result in postoperative myxedema, and this is true in growing children but not in adults. The thyroid gland has very little function in full-grown adults and can better be done without than to be constantly fighting thyrotoxicosis when the gland is diseased. I have a few patients who take $\frac{1}{4}$ grain of thyroid extract, one to three times daily, off and on as needed; they are more likely to need it in winter time than in summer.

Pregnancy and diabetes are no barriers to surgery in toxic goiter; in both instances at times surgery is a necessity. I have often operated for thyrotoxicosis in pregnancy and have never lost a mother or baby; of course, in these conditions extra precautions should be taken to protect the patient.

Indications for surgery in thyroid disease.

1. Thyroid toxemia.
2. For cosmetic purposes.
3. For relief of pressure symptoms.
4. In suspected malignancy.

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FOLLOW UP STUDIES OF 661 MAJOR GYNECOLOGIC OPERATIONS

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During the period, October, 1936 - October, 1941, there were on the gynecologic staff service at the University Hospital of Augusta, 661 subtotal, total abdominal and vaginal hysterectomies, 59 per cent of which were performed on colored and 41 per cent on white patients. The indication for operation differed radically in the two groups: among the white patients vaginal hysterectomy constituted the largest group, among the colored—total abdominal hysterectomy. Most of these patients reported 6 weeks postoperatively for follow-up examination and a good many of them were seen 2 - 5 years thereafter. At these follow-up examinations, we recorded the appearance or disappearance postoperatively of symptoms like backache, hot flushes, urinary incontinence, dyspareunia and libido as compared with the condition of the patient relative to same symptoms preoperatively. All the operation scars were checked and keloid formation recorded.

As we have already indicated not all the patients reported for follow-up examination and in those who did report, the improvement or disappearance of certain symptoms, due to their very nature, was not always clear cut to justify us to make numbers our main basis of proof. Our clinical observation as a whole, however, was convincing enough to allow us to draw certain conclusions. Most interesting of all was our observation made apparently for the first time, of hot flushes appearing in a large number of young patients, sometimes accompanied by nervousness, headache, vertigo and weakness, for a shorter or longer period previous to any surgical interference. In many cases this symptom became aggravated a short time after the operation; in others it was absent for several months or even years following hysterectomy, only

to reappear at the end of that period; in still others, most surprisingly — never to return again, i.e., at the end of a 5-year follow-up period.

This phenomenon, seen in the light of accepted theory, seemed paradoxical at first. However, taking our clinical observation at its face value, augmented by conclusions of various authors derived at on the basis of experimentation on animals as well as humans and laboratory hormone determinations, we attempted to formulate a concept as to position of the uterus in the endocrine system, more specifically its function in the metabolism of the female sexual hormones. (May it be noted at this juncture that from the histories of the patients and judging by the regularity of the symptom, emotional tension could definitely be excluded as a factor in the causation of vasomotor disturbances in these patients. Also the quality of this symptom was the same pre- and postoperatively, if not the quantity.)

Since all symptoms like headache, vertigo and nervousness, with the exception of hot flushes, were inconstant, we thought it best to speak of hot flushes only. Hot flushes and menopausal disturbances will therefore be used synonymously in this paper. (Dippel,⁴ Marx¹⁰ et al).

It is a well established clinical fact that menopausal symptoms follow the early artificial elimination of ovarian function by surgery or x-ray. It is also accepted by most authors that the same symptoms will appear sooner or later after hysterectomy. There is disagreement, however, as to the mechanism by which these symptoms are brought about. Graves believed that the menopausal symptoms following hysterectomy are observed with virtually the same intensity and frequency without as with simultaneous removal of the ovaries. The retention of ovarian tissue, therefore, he maintained, is not only of little advantage, but of possible harm to the patient. Tamis¹⁷ was also of the opinion that there is no direct relationship between ovarian function and onset of the vasomotor disturbances of menopause; he believed, however, the intensity of the flushes in hysterectomized

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Read before the Medical Association of Georgia, Augusta, May 1, 1942.

TABLE 1
TOTAL NUMBER OF HYSTERECTOMIES, INCLUDING
FUNDAL AMPUTATIONS

	SUBTOTAL		TOTAL		VAGINAL		FUNDAL AMPUTATIONS	
	White	Negro	White	Negro	White	Negro	White	Negro
No. of Operations.....	42	150	56	196	178	29	16	10
Average Age	32	34.2	34.3	34.6	36.1	36.7	23.9	24.6

TABLE 2
HOT FLUSHES
AMONG 420 PATIENTS REPORTING

	Before Operation	Cured	Improved	Same	Worse	Hot Flushes Present at the First Post- operative Visit
White	63	35	11	17	0	34
Negro	103	53	22	20	7	73

women to be proportional to the amount of endometrial tissue removed. On the other hand, enough evidence was brought forward to prove that, at least in the animal, definite degenerative changes take place in the ovary following hysterectomy. The menopausal symptoms in the human, therefore, it was suggested, might also be the result of similar changes in the ovaries.

That the uterus influences the ovary functionally can be seen from the fact that under certain pathologic conditions, like a long lasting retroflexion of the uterus with oversupply of blood that leads to increase of the uterine tissue by hyperplasia, the menopause can be moved to a much later date than the average. By injecting 5 per cent tincture of iodine or sterile Ringer's solution into the uterine cavity drop by drop, Rosenblatt (quoted by Zimmermann²⁰) could produce amenorrhea, thereby indicating the influence of the endometrium on the ovary. As he expressed it, "the intrauterine stimulus is much stronger than the hormonal and suppresses it." Sessums and Murphy¹⁶ autotransplanted endometrium on the hysterectomized rabbit and it seemed to them that this had a tendency to limit the extent of the degenerative changes in the ovaries which were otherwise markedly visible as a result of hysterectomy. Their assumption was that the endometrium elaborates a hormone which influences the ovary.

Hechter⁷ and his collaborators suggested, on the basis of their experiments with guinea pigs, that the uterus contains a corpus luteum antagonist, the removal of which allows luteal persistence, for if a uterus was implanted in the hysterectomized animal and took, the corpora lutea did not persist; they were inhibited.

Mischel and Motyloff¹² developed the idea of the uterine endometrium serving as a regulator and protector of the functional elements of the ovary, for they observed either a precocious regression or a tendency to abnormal and exaggerated activity of the follicular apparatus following hysterectomy. Endometrial extract used on the same animal served to regulate the functional activity of the ovaries.

Hauptstein and Bühler⁶ went still further and suggested that the uterus may be producing a substance which directly controls or regulates the secretion of gonadotropic substance of the anterior pituitary and its biologic strength, thus indirectly controlling ovarian function also.

However, the contention that ovarian changes resulting in menopausal symptoms after hysterectomy might be due, in part at least, to a disrupted and inadequate ovarian blood supply as a result of the operation cannot be easily refuted. Dippel⁴ collected 42 cases in which hysterectomy was done for sterilization purposes only with no demonstrable pelvic disease. He

TABLE 4
TOTAL NUMBER OF POST OPERATIVE SCARS CHECKED

W H I T E				N E G R O			
81				266			
25	38	18		61	58	147	
		FIBROMYOMAS	OTHERS			FIBROMYOMAS	OTHERS
		6	12			131	16
Atrophic	Subcutaneous Infiltration	Keloids		Atrophic	Subcutaneous Infiltration	Keloids	

between the appearance of hot flushes pre-operatively as observed by us and the absence of estrogenic substance or increase in gonadotropic substance as reported by Frank-Goldberger and Aschheim-Zondek respectively.

On the basis of our clinical observations we attempted to explain this relationship in the following manner: the uterus as a link in the female sexual endocrine system may be assumed to play a triple role:

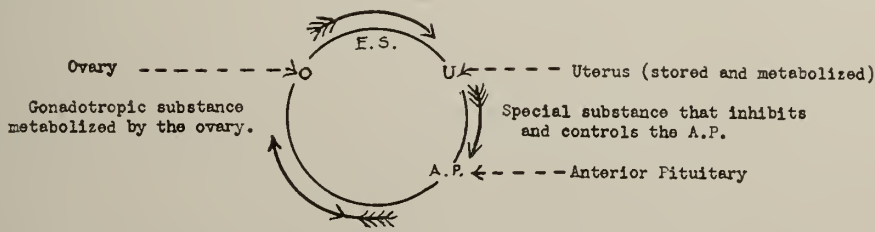
1. It stores the estrogenic substance produced by the ovary, thus controlling the concentration of this hormone in the circulating blood. (This will be discussed later in more detail).

3. It may produce a special substance, either independently from the estrogenic substance or as a converted product of its metabolic changes in the uterus, that has an inhibitory and controlling effect on the anterior pituitary which in turn directs the function of the ovary.

Graphically it would present the following picture:

The function of the uterus in the sexual system would then be somewhat similar to the function of the liver in the digestive system.

It is assumed that in some cases of menometrorrhagia and uterine fibromyomas the hormonal function of the uterus is perverted, its metabolism disrupted. All the



2. The endo- or myometrium may alter the estrogen secreted by the ovary to increase or decrease its physiologic effect. (That the endometrium changes certain estrogenic substances in its process of metabolism is known. Heller⁶ found that the endometrium changes estrone into a substance 20 times stronger, which he assumed to be estradiol.)

estrogenic substance may be picked up by the uterus and either held or destroyed there, thus depriving the circulating blood or even the uterus itself of it. The special substance with its inhibitory effect on the anterior pituitary may not be formed, or at least not excreted. The result may be disappearance of the estrogenic substance from the blood as reported by Frank and

TABLE 5
RELATION BETWEEN LIBIDO, DYSPAREUNIA AND HOT FLUSHES

CASE NUMBER	AGE	LIBIDO	DYSPAREUNIA		HOT FLUSHES	
			BEFORE	AFTER	BEFORE	AFTER
2231	32	Improved	3 plus	0	0	plus
2241	30	Diminished	2 plus	0	0	plus
1924	39	Improved	2 plus	0	0	plus
1857	41	Lost	2 plus	2 plus	2 plus	0
1742	30	Diminished	3 plus	0	3 plus	0
1511	37	Lost	plus	0	0	0
1027	24	Lost	plus	plus	2 plus	0
749	36	Diminished	plus	0	plus	0
602	40	Diminished	0	0	2 plus	0

These cases are the exceptions to the rule which we found that libido, dyspareunia and hot flushes are improved or diminished simultaneously.

Goldberger⁵, a massive uninhibited elimination of gonadotropic substance as observed by Aschheim-Zondek, appearance of hot flushes as seen by us. If the uterus is removed the reservoir for the estrogenic substance falls out, its concentration in the circulating blood remains high. The high concentration of estrogenic substance as antagonist to the gonadotropic substance is able either immediately or after a shorter period to pick up some of the excessively eliminated gonadotropic substance and metabolize it¹⁵ until a temporary balance is reached. This balance, however, in view of the absence of the controlling effect of the uterus cannot be kept up indefinitely. Menopausal symptoms will appear sooner or later or never, for menopausal symptoms are the result mainly of a sudden elimination of one or more substances from the circulation. If under certain circumstances this withdrawal could be made gradual no menopausal symptoms will appear. Vogt¹⁶ implanted endometrium in the vagina in humans following hysterectomy and in all cases menopausal symptoms could be prevented, apparently because the elimination of the uterine effect on the anterior pituitary and the latter's effect in turn on the ovary, took place gradually and without friction.

That the uterus stores follicular hormone has long been known. Frank and Goldberger⁵ found that the female sex hormone concentration in menstrual blood is from triple to six-fold the concentration found in the circulating blood. That this hormone found in the uterus is not formed, only

stored there, was proved by Hauptstein and Bühler⁶, at least in the case of the rat. In that animal the route ovary-tube-uterus, in deference to that of the human, does not open into the peritoneal cavity, but is closed up by the formation of a special ovarian pouch and therefore represents a closed system. When the tubal end of this pouch was ligated and the stagnated collecting fluid in the pouch examined, it was found to be follicular hormone, thus showing that there is a direct flow of follicular hormone into the uterus by way of the tube in addition to that of the circulating blood.

Our assumption not only places the often forgotten uterus in the limelight of sexual function, but also entails practical potentialities, for it would be more rational to treat menopausal symptoms following on the heels of hysterectomy with uterine rather than with ovarian substitution therapy.

Keloids, relation to fibromyomas. See table 4. Each abdominal scar was inspected for keloid growth, subcutaneous infiltration or atrophic healing. Among 81 white women 25 had atrophic scars, 38 scars with subcutaneous infiltration and 18 with keloid growth. Six of these 18 were in patients who had fibromyomas and 12 were in patients with pathologic changes other than fibromyoma. In 266 Negro patients 61 had atrophic scars, 58 subcutaneous infiltration and 147 had keloids. Of the 147 keloids 131 were in patients who had fibromyomas and only 16 were in patients with pathologic changes other than fibromyomas. The ratio of abdominal surgery in the white to

that of the Negro women was 1:3. The ratio of keloid formation in the white to that of the Negro women was 1:8.2. The frequency of keloid formation in the Negro was therefore about 3 times as great as in the white. This figure compared with that given for fibromyoma seems to give credence to a suggestion made by Torpin, Pund and Peeples¹⁸ in a recent publication that there must be some relation between keloid formation and occurrence of fibromyoma in the Negro, although it cannot histologically or pathologically yet be proven. Another fact, according to Burman², supporting this suggestion is that injuries before puberty even in those colored people who are liable to this condition, show no keloid formation unless as rare exceptions; injuries after puberty are followed by keloid growths. Fibromyomas are also very seldom seen before puberty. It seems logical to imagine that the same "something" essential in the formation of fibromyoma also influences the excessive fibrous tissue formation known as keloid.

It would be interesting to know whether the tendency to keloid formation as well as the development of fibromyoma diminishes with the onset of menopause, or whether those already present show a tendency to diminish in size.

Backache. Backache is a frequent symptom in pelvic disease. Lynch reports backache as a symptom in 49 per cent of 1,041 cases in which operation was performed for pelvic disease and Ward cites its occurrence in 50 per cent of a large series of similar material. In our cases the frequency of backache as a symptom preoperatively was 58.3 per cent and was seen not only in the total and subtotal groups where fibromyoma was the most frequent indication for operation, but also in the vaginal hysterectomy group where operation was performed mainly for menometrorrhagia resistant to conservative treatment, chronic cervicitis, cystocele and rectocele.

As long as backache was a minor symptom, and in no case did we subject a patient to a pelvic operation for this symptom alone, we did not go into the details of a differential diagnosis, but contented ourselves with the elementary definition of a

gynecologic backache.

1. Pain located in the midsacral region.
2. Pain aggravated during, before or after menstruation.
3. Pain worse upon manipulating lower broad or sacro-uterine ligaments.
4. Pain worse at the end of a work day; relieved by bed rest.

We knew that this symptom at least in some of our cases was probably not of purely gynecologic origin, if at all; the failure to get relief of this symptom in some of our cases may have been due to this fact. On the other hand, we noticed that the number of failures was highest in the subtotal group. That led us to suppose that cervicitis and cystocele, done away with in total and vaginal hysterectomies, played a major rôle in causing backache. Substantiating this supposition also is our observation that not in a single case where urinary incontinence did not improve following the operation was there improvement in the backache symptom, if present before operation.

Dyspareunia and libido. One hundred and twenty patients were questioned in regard to dyspareunia before and after hysterectomy for a comparative statement. Among these only 3 professed to have dyspareunia postoperatively not existent before operation. Two of these cases were total and one subtotal hysterectomies. One of the former actually had a shortened vagina; the other had a narrow introitus as a result of a too tight perineorrhaphy. In no vaginal hysterectomy was dyspareunia a symptom postoperatively unless it was present before operation. In most of the cases improvement of libido went parallel with diminution of dyspareunia and disappearance or decrease of hot flushes and vice versa. In some cases, however, as table 5 indicates, such a relationship could not be elicited.

Summary

During the 5-year period reviewed, 661 hysterectomies were done and some of the pre- and postoperative symptoms in these patients were comparatively analyzed.

We observed that hot flushes appear in a relatively large number of cases with

menometrorrhagia or fibromyoma a year or two previous to surgical interference. This symptom, in many cases, disappeared following hysterectomy.

In order to explain this phenomenon we assumed that hot flushes are accompanied by a decrease in estrogenic substance and increase in gonadotropic substance. Our burden of explanation thus limits itself to the sequence of these hormonal changes in some cases of fibromyoma or menometrorrhagia.

On the basis of various experiments reported in the literature we formulated the following concept:

The uterus as a storage house for the estrogenic substance produced by the ovary not only alters it to increase or decrease its biologic strength, but also may produce a special substance which has an inhibitory and controlling effect on the anterior pituitary. In some cases of menometrorrhagia and fibromyoma this normal function of the uterus as well as its qualitative metabolism may get completely out of bounds. The uterus may pick up all the estrogenic substance out of the blood, the special substance is not produced. The result is decrease of estrogenic substance in the blood, increase of gonadotropic substance — hot flushes. After hysterectomy there is increased excretion of gonadotropic substance, as well as a high concentration of estrogenic substance in the blood and a balance between these two antagonists is either temporarily or permanently formed. The intimation was also made that treatment of menopausal symptoms following hysterectomy with uterine substitution therapy would be more rational than ovarian substitution therapy.

Postoperative scar keloid formation was most frequent in Negroes, particularly in those operated on for fibromyoma. The possibility of the same causative factor playing in the formation of fibromyoma and keloid was raised.

Backache was a symptom in 58 per cent of our cases who reported for follow-up. The greater number of cures from this symptom in total and vaginal operation led us to conclude that cervicitis and cysto-

cele played a major rôle in the causation of backache.

In no case of vaginal hysterectomy was dyspareunia a symptom postoperatively.

The occurrence of, and results in regard to the symptoms of backache, urinary incontinence, abdominal pain and vaginal discharge are summarized in table 3.

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To extend to the physicians in the armed services the best facilities of American medicine in the interest of our fighting men, a series of Wartime Graduate Medical Meetings is in the process of organization under the auspices of the American Medical Association, the American College of Physicians and the American College of Surgeons, *The Journal of the American Medical Association* announces in its May 1 issue.

These meetings are authorized, as far as they concern the armed forces, by the Surgeon Generals of the Army, Navy and Public Health Service. The organizations concerned have appointed a committee of three men—one from each organization—to proceed with the work of administration.

It is proposed to hold the meetings in service hospitals. Qualified authorities have been appointed as national consultants in the various special fields of medicine.

THE VAGINAL APPROACH TO PELVIC DISEASE

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A review of the more frequently performed pelvic operations, through the vagina, is to be presented, as I feel that we are prone to overlook the value of these operations in selected cases.

There are certain cases of pelvic disease in which obviously the condition may be approached by the vaginal route to the best advantage, and which is generally performed, such as drainage of a pelvic abscess. This is done by a posterior vaginal section, and gives dependent drainage in its lowest and most advantageous position. There are other types of pelvic conditions that are border line, and may be approached by vagina or abdominal routes, and it is the purpose of this paper to bring before you the value of the vaginal approach in those cases that are suitable.

Read before the Medical Association of Georgia, Augusta, May 1, 1942.

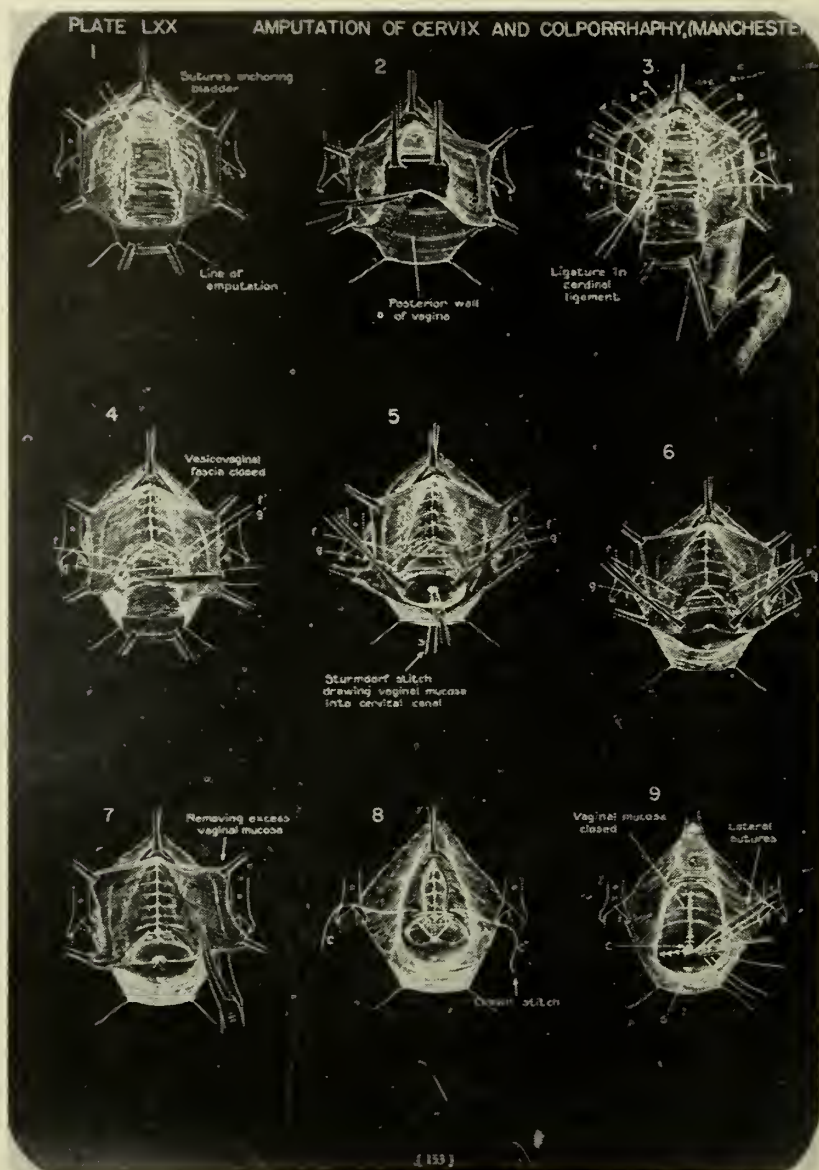
In reviewing the operations from the gynecologic service of the Grady Hospital, white unit, I found that in the past 3 years, 8 Watkins' interposition operations had been performed, 24 vaginal hysterectomies and 6 Manchester or Fothergill bladder advancement operations and 2 LeForts. The operations were performed by various ones of the operative staff.

The advantages, in general, of vaginal section in suitable cases are:

1. As mentioned above, better drainage of pelvic cavity.
2. Evacuation of pus without contamination of peritoneal surfaces, because usually in cases of pelvic suppuration the general peritoneal cavity is closed off by a wall of inflammatory exudate which binds together the upper pelvic structures and protects the general peritoneal cavity from contamination.
3. Usually less danger in vaginal section, because there is less exposure and handling of the intestines and peritoneum.



1. Technic of Watkins' Interposition Operation (Graves).



2. Amputation of Cervix and Anterior Colporrhaphy (Manchester).

4. Less danger of postoperative hernia.
5. Can be combined with certain plastic operations, which may be indicated at the same time as cystocele, severe procidentia, etc.
6. And last, there is no visible scar.

The employment of vaginal section, has certain disadvantages that should be kept in mind, and some of these may be enumerated as:

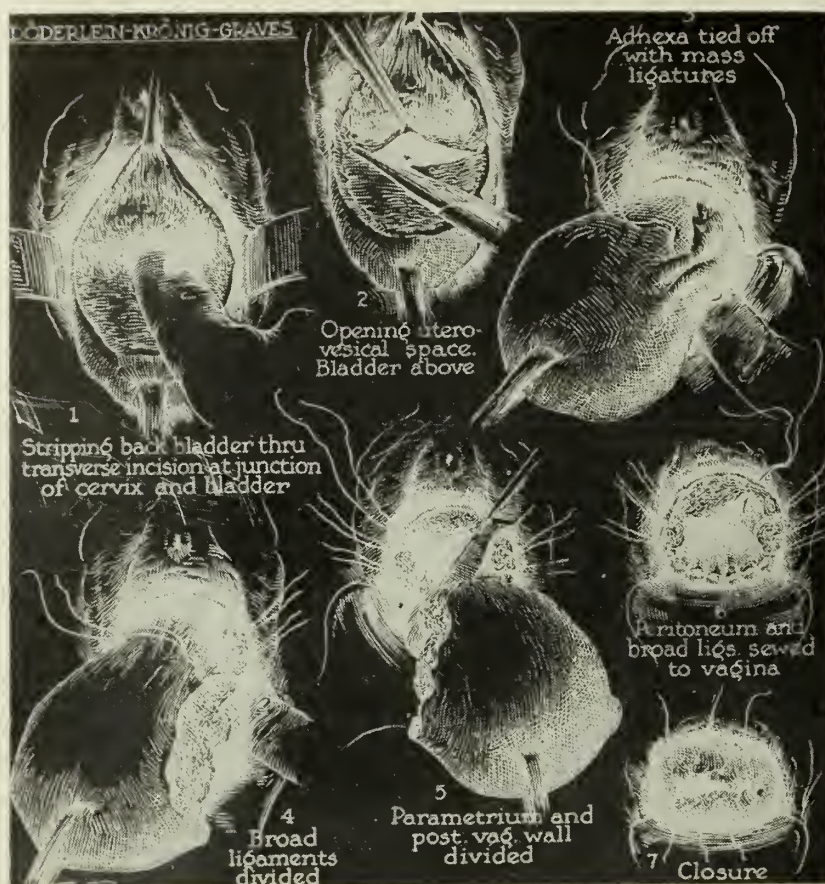
1. Imperfect visualization of the pelvis, and inability to completely explore the pelvis and lower abdomen.
2. A diseased appendix cannot be satisfactorily handled. Many cases of pelvic

disease have, or have had, associated affections of the appendix. However, there are many cases that have had the appendix removed previously, and either still have or subsequently develop pelvic disease.

3. The manipulations in vaginal section are sometimes cramped because of lack of room in the operative field.
4. Unexpected adhesions may interfere with the proper performance of certain conservative operations.

The anterior vaginal section is mostly concerned with degrees of uterine prolapse and the surgical treatment of uterine pro-

<i>Case</i>	<i>Age</i>	<i>Clinical Diagnosis</i>	<i>Operation</i>	<i>Findings</i>	<i>Complica- tions</i>	<i>Mort. & Morb.</i>	<i>Follow Up</i>
29338	58	Cyst. & rectoc., fibroid uterus.	Supracervical hyst. and ant. and post. colporrh., caut. of cervix. (Mayo)	Myoma of uterus.	P. O. cystitis	Temp. on 6th & 7th P. O. days.	1 mo. P. O. O.K. Did not return.
29880	46	Cyst. & rectoc., endocervicitis.	Vag. hyster. and ant. and post. col- porrh. (Mod. Haeney)	Endomet. hyper. & chr. cervicitis.	None	None	3 mo. O.K.
36802	44	Cyst. & rectoc., fibroid Ut.	Vag. hyst. and ant. and post. colporrh. (Haeney)	Fibrosis of cer- vix and regres- sion of uterus.	Urinary incont.	None	Residual cysti- tis 15 mo. P. O.
42404	50	Cyst. & rectoc., endocervicitis. 2° procident.	Vag. hyst. and ant. and post. colporrh. (Mayo)	Fibrosis of cer- vix and regres- sion of uterus.	None	None	5 mo. P. O. re- sults good.
44060	45	3° Procident., cyst. & rectoc.	Vag. hyst. and ant. and post. colporrh. (Mayo)	Norm. ut.	None	Elev. of temp. for 7 days P. O.	Shallow vag. canal 2 mo.
44774	39	2° Procident. & cyst. & rectoc., chr. cervicitis.	Vag. hyst. and ant. and post. colporrh. (Haeney)	Chr. cyst. cervi- citis.	P. O. cystitis	Temp. 5 and 6 P. O. days.	Due to return in 2 weeks.
49106	42	Prol. Ut. 2°, cyst. & rectoc., chr. cervic., & polyp.	Vag. hyst. and ant. and post. colpor- rh., rt. salpingo- oophorect. (Mayo)	Chr. cyst. cervic. and follic. cyst. ovary.	P. O. cystitis	Elev. of temp. for 8 days P. O.	Shallow vag. 8 mo. P. O.
7197	41	Cyst. & rectoc., chr. cyst. Cervic. Ut. fibrosis.	Vag. hyst., and ant., and post. col- porrh. (biopsy of cervix prelim.)	Chr. Cyst. Cer- vic. and intersti- tial leiomyoma.	P. O. cystitis & sulfathiazole drug reaction (rash & temp.)	P. O. temp. for 2 days.	3 mo.—good results.
8790	51	1° proc., cyst. & rectoc.	Vag. hyst., ant. & post. colporrh. (Mayo)	Ulcers. of cerv., chr. cervicitis.	P. O. cystitis.	Temp. over 100.4 for 4 days P. O.	1 mo. P. O. shallow vag.
14318	37	Prolap. ut. 2° cyst. and rectoc.	Vag. hyst. ant. & post. colporrh. (Mayo)	Chr. cervic. & metritis.	Diabetes. No P. O. complicat.	No morbid.	5 mo.—good results.
19252	53	Prolap. ut. 2°. Cyst. & rectoc., possible ca. of cervix.	Vag. hyst., ant. & post. colporrh. (Mayo)	Sruam. cell ca. of cervix.	P. O. cystitis.	Temp. above 100.4 on 6th & 8th P. O. days.	Deep x-ray ther. 1 mo. P. O. & 9 mo. P. O. results good. 2 yrs.
19370	48	Cyst., Chr. Cer- vic. Ut. Retrov. & 1° procident. Rectocele.	Vag. hyst., and left salpingo-oophor., ant. & post. col- porrh.	Chr. Cervic. en- domet. hyperpl. with polyposis, cyst of ovary.	P. O. cystitis.	Temp. to 100.6 on 11th and 12 days.	7 mo. P. O. re- sults good 1½ yr. later O.K.
25537	58	3° prociden., cyst. & rectoc.	Vag. hyst., with ant. & post. col- porrh.	Chr. cervicitis.	P. O. cystitis.	Temp. for 3 days P. O., and also 7th P. O. day.	14 mo.—results good.
27187	43	Cyst. & rectoc., 2° retrovers.	Vag. hyst., with cyst. & rectoc. (Mayo)	Chr. cervic. & endomet., polyp.	Hole in blad. with vesicovag. fist., cystitis.	Temp. above 100.4 for 6 days.	2nd repair for vesicovag. fist. 2 yrs. later.
4004	51	Cys., rectoc., chr. cervic., 2° ut. prolap.	Vag. hyst., post colporrh., May o tech., with rd lights in front of bladder. (Prelim. D.&C., and biop.)	Chr. cervicitis and endom. polyp.		Elevation of temp. for 6 days P. O.	6 mo. after op. had slight re- lax. of ant. vag. wall.
23316	37	Chr. Cervic., rec- toc. uter. fibro- sis.	Vag. hyst., and post. colporrh.	Prolif. endomet., chr. cervicitis, fibrosis of cerv., myometrium.	None	No morbid.	2 mo. after op. was in good condi.
24554	42	Cystoc., rectoc., Chr. Cervic., 1° procident.	Vag. hyst. and ant., and post. col- porrh. (Mayo type with blad. interposed)	Chr. cervicitis.	Cystitis	Temp. on 5th P. O. day for 24 hrs.	1 mo. P. O. good result. Has not returned.



3. Vaginal Hysterectomy (Doderlein-Kronig-Graves).

lapse must of necessity be individualized, as no single method is applicable to all cases. The degree of prolapse, the age of the patient, the sex life, the presence of complicating factors, as adhesions and myoma must be taken in consideration in determining the type of operation to be performed. In general, however, conservative measures are used in cases of partial prolapse, and in younger women; and the more radical procedures in the complete prolapse, which usually occur in the elderly group.

As the chief cause of prolapse is overstretching or tearing the muscular or fascial supports at the base of the broad ligaments, then any operative procedure must include shortening (suturing) or overlapping of these structures. In addition, the associated cystocele and rectocele must be repaired as well as a possible complicating enterocele.

The least radical of the major surgical

procedures designed for the correction of cystocele and prolapse is the Fothergill or Manchester operation, or bladder advancement operation, and consists of amputation of the cervix, advancement of the bladder, shortening of the bases of the broad ligaments and posterior colporrhaphy. It preserves the functions of childbearing and does not alter the depth of the vagina.

The interposition operation, devised by Dr. Thomas Watkins, is applicable only after the menopause, or artificial sterilization, and is most useful in elderly women with cystocele and only partial prolapse. It consists of the insertion of the fundus of the uterus between the bladder and the vesico-vaginal layer of the endopelvic fascia. The bladder is separated from the uterus, the peritoneum opened, the fundus grasped and sutured to fascia below pubis. A posterior colporrhaphy completes the operation. This operation was first performed by Watkins in 1898.

<i>Case</i>	<i>Age</i>	<i>Clinical Diagnosis</i>	<i>Operation</i>	<i>Findings</i>	<i>Complica- tions</i>	<i>Mort & Morb.</i>	<i>Follow Up</i>
60996 • A	44	Cystoc., rectoc., chr. cervic., and 2° procident.	Vag. hyst., and ant. and post. colporrh. (Mayo type.)	Cervic. erosion, subinvul. of ut. with fibrosis of myometrium.	P. O. cystitis	Temp. above 100.4 for 3 P. O. days.	3 mo. P. O. with good results.
58973 •	35	Cyst. & rectoc., and chr. cervic., and ut. fibrosis, 1° prolapse.	Vag. hyst., ant. and post. col- porrh. (Mayo tech.)	Fibrosis uteri, endomet, hyper- plasia.	None	Temp. above 100.4 on 4th P. O. day.	5 mo. P. O. re- sults excellent.
5440 • A	35	Cyst., 2° prolap- sus, chr. cervic.	Supracervical vag. hyst., and A. & P., colporrh. (Mayo)	Chr. cervicitis, endomet, hyper- plasia.	Vag. pack not removed for 66 days.	P. O. temp. for 66 days.	1 yr. P. O. re- sults good.
57123	38	Menorrhagia, fi- broid ut., recto- cele.	Vag. hyst. (Hae- ney) perineor- rhaphy. (Prelim. D. & C.)	Fibromyoma of uterus.	None	None	5 mos., results good.
60136	37	Cyst. & rectoc., chr. cervicitis, 1° procident.	Vag. hyst. (Hae- ney) and peri- neorrh.	Chr. cervicitis.	P. O. cystitis	None	Due in 2 mos.
41466	39	Cyst. & rectoc., chr. cervicitis.	Vag. hist. (Hae- ney) and peri- neorrh.	Chr. cervicitis.	None	Temp. 2 days 100.1.	Due in later.
A35598 •	60	Cystocele & pro- cidentia.	Watkins inter- position.		None	Temp. 102 2nd day.	Good perineal sup. 1 mo. later.
A34354	70	Cystocele & 3° procidentia.	LeFort		Cystitis	Temp. to 100.2 4th & 5th days.	No pelvic com- pli. in 1 year.
A22942	54	Cystocele with prolapse of rim of cervix fol. panhyst.				Temp. to 100.2 2nd & 3rd days.	
A20491	48	Crystocele, 2° procident. & re- lax perine.	Watkins interpos. & post. colporrh.		None	None	
A55096	57	Procid. 2°, cys- tocele & recto- cele.	Watkins and post. colporrh.		Cystitis, diabetes.	7-10 days temp. 101°.	4 mo. P. O. re- cur. cys. toc.
A64656	42	Chr. cervicitis, cystocele & rectoc.	Ant. & post. col- porrh. & amp. of cervix.	Chr. cystic cer- vicitis.	None	None	3 mo. P. O. good result.
A10513	45	Complete proci- dentia & recto- cele.	Watkins interpos. & perineorrh. & amp. of cervix.			None	Sl. cystit. 1 mo. P. O. No com- plaint.
A10406	61	2° procident. & relax. perineum with caruncle.	Watkins interpos. & perineorrh.		None	None	P. O., O.K. 2 mos.
A4205 •	69	3° prolapse & re- lax perineum, atroph. uterus.	Watkins interpos. & perineorrh.		Cystitis	Temp. to 100.4 1-4 days P. O.	2 mos. P. O. no gyn. symptoms.
A4004	51	2° procident., cyst. & rectocele.	Vag. hyst., and perineorrh. (Mayo)	Chr. cervicitis, endomet., polyp.	None	Temp. to 100.2 for 5 days.	Slight relax. of ant. wall.
A44195	32		Manchester Fathergill.				Results good.
A13111 •	66	Cystocele & rec- tocele & 3° procident.	Watkins interpos. & perineorrh.		Low-grade temp. for 18 days.	Low-grade temp. for 18 days.	4 mos. P. O. entirely relieved.

Vaginal hysterectomy: Usually performed in cases of severe prolapse, but may be employed in competent hands for hysterectomy that does not have any of the aforementioned contraindications. A brief outline of the usual procedure is as follows: Inverted T incision of vaginal wall anterior to cervix; blunt dissection of bladder from vaginal wall; longitudinal incision of an-

terior vaginal wall from cervix to point near external urinary meatus; elevation of bladder above peritoneal reflection; completion of circular incision of vaginal mucosa posterior to the cervix; incision of peritoneum of posterior culdesac; clamping and ligating both uterosacral ligaments and lower one-third of broad ligaments severing these ligaments from uterus then incision of an-

terior culdesac, delivery of fundus, ligation of upper thirds of broad ligaments, and excision of the uterus; closure of peritoneal cavity, and uniting broad ligaments in midline (Mayo technic), anchoring the round ligaments to the fascia under pubic rami, in front of the bladder.

In the Haeney technic, the closure is different. If a cystocele is present, the anterior repair is completed last, using interrupted sutures so as not to shorten the anterior vaginal wall. The peritoneum is then picked up in successive bites out to round ligament and tubo-ovarian stump, around which the suture is passed, so as to doubly ligate the ovarian vessels. The suture is then passed in bites from upper to lower part of broad ligament, passing from posterior surface anteriorly, so as to catch the peritoneal edges and thereby perform a peritoneal toilet. When the uterine stump is reached, it passes around it so as to re-ligate these vessels. The suture then picks up the peritoneum of the posterior incision and is passed around the sacrouterine ligament, then into the posterior fornix and tied. It has doubly ligated all the vessel stump, attached the round and broad and sacrouterine ligaments to vaginal vault, so as to hold up the vault of the vagina. It has performed the peritoneal toilet in the right side, and has closed the right side of vaginal incision. The same is done on the left side.

Two or three interrupted sutures, which pick up the anterior mucosal edge, anterior peritoneum, posterior peritoneal edge and posterior mucosal edge complete the operation. The operation is completed by performing repair of posterior pelvic floor.

Summary

The technic and general indications of some of the most useful vaginal procedures have been reviewed, with the idea that we may be overlooking in suitable cases the vaginal approach in pelvic conditions.

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SUDECK'S ACUTE BONE ATROPHY

Report of Case

F. B. BROWN, M.D.
Savannah

This condition was first described by Sudeck in 1900, who at that time considered it an infectious process but two years later agreed with Kienbock that it was a reflex neurotrophic phenomenon. Various theories as to its cause have been advanced and these differ mainly in the consideration of whether it is directly due to circulatory disturbances or to reflex trophoneurotic action. The latter theory has been accepted by most writers and the fact that no case of acute bone atrophy has yet been achieved experimentally adds weight to their views. Only in recent years has the subject received much attention in this country, although in Europe it has been recognized and studied as a definite clinical entity for a much longer time. In 1934 Gurd stated that of 91 articles in the literature, nine were written in English and of the nine only one dealt with the true nature of the disease while all others considered atrophy of whatever type or cause. In 1921 and again in 1928, the subject was the main topic of consideration at the Congress of German Orthopedists.

Maurer believes that decomposition of tissues at the site of injury causes an irritation of the sympathetic innervation of the blood vessels with hyperemia and exudation of the fluids. The chemicophysical character of the blood and tissue fluids is changed and the processes of resorption and regeneration occur simultaneously. The activity of the two processes is influenced by the character of the fluids, and if acidosis remains at the site of trauma regeneration is delayed by failure of calcification of the osteoid tissue and the condition goes on to progressive atrophy. All tissues in the area of injury are bathed in edema and, therefore, not only bone but muscle tendons and capsule are involved.

The disease is a rapidly progressing

osteoporosis occurring most frequently in polyarticular regions and usually distal to the site of injury. The wrist and ankle are the most common sites but it also occurs in the spine and long bones. Kummel's disease of the spine may be considered as belonging to this classification. More recently cases have been reported in the shoulder region. Henderson reported a case of complete disappearance of the radius and ulna in two years with final regeneration. The condition may follow any injury, serious or trivial, and peculiarly the worst cases have been due to very minor trauma, as a simple sprain. Therefore, recognition of this disease is of considerable importance in compensation cases, and a careful study should be made before an injured person is accused of malingering or his complaints attributed to traumatic or compensation neurosis. Unnecessary amputations may be avoided by exact recognition of the disease as this has been done because of failure to properly recognize the condition. It is most frequently mistaken for tuberculous osteoarthritis, gonorrheal arthritis and neuropathic disease.

Several other types of bone atrophy are more or less familiar, especially the senile osteoporosis and disuse atrophy, the latter so often seen after long periods of immobilization after fractures, but the vasomotor changes are not marked and it is not as rapid in onset. The intense pain of Sudeck's atrophy distinguishes it from disuse atrophy. The roentgenograms differ markedly. Following injury, which may be of minor nature, the original swelling persists and the extremity gradually becomes more swollen, and pain increases in intensity instead of subsiding as one would expect from a slight injury. The skin becomes smooth, "shiny" and cyanotic as the disease progresses. The skin will be distinctly colder than the opposite extremity and the patient will complain of it being cold all the time. In the case I am reporting, the entire extremity was markedly colder from the toes to the upper thigh.

After several weeks roentgenograms show a marked atrophy of the bones characterized by multiple, irregular openings in

the bone with extreme thinness of the cortices. The usual bone striae will be absent in the area involved. These changes noted on the x-ray film are usually distal to the site of injury but in the tarsal bones may spread upward to involve the lower end of the tibia, and when the disease involves the carpal bones the lower end of the radius will also be affected. The clinical picture of a perfectly reduced Colles' fracture with swollen hand and fingers persisting several weeks is not uncommon, but the underlying cause of swelling, pain and stiffness may be attributed to immobilization in plaster or splints when the true cause of prolonged symptoms may be overlooked and the acute bone atrophy not recognized.

Treatment should always be conservative in the earlier stages. There are no preventive measures to combat the onset of the condition, as it is usually not recognized until treatment for the injury is complete. Rest in bed with extremity elevated (in cases of lower extremity) for sufficient time for edema to disappear followed by snug-fitting, unpadded plaster cast with the use of a walking iron incorporated in plaster; heat and diathermy give temporary relief from pain; and contrast baths and exercises consisting of active and passive motion with and without resistance should be used. Attention should be given to the diet, and vitamins A and D given. X-ray therapy has been advocated for the most severe cases without the hoped-for results. Most cases will get well under conservative regime. Forceful manipulation with or without anesthesia should never be done. Surgery is indicated in the most stubborn cases which show no improvement after many months. It must be remembered that from six months to two years may be required to effect cure.

Surgery consists of periarterial sympathectomy or ganglionectomy. Amputation is not necessary and should never be done. The periarterial sympathectomy is a simpler approach; the brachial or femoral artery is exposed and stripped for one and one-half to two inches, but it is a delicate procedure as damage may be done to the vessel with leakage and subsequent hema-

toma. Relief may not be obtained and ganglionectomy must be done later. There has been recent reports to the effect that ganglionectomy does not relieve pain but this is not true of the case I am reporting.

Report of Case

Mrs. C. M., aged 31; this young white woman was seen first Sept. 4, 1941, complaining with pain beneath the metatarsal heads and across dorsum of right foot. She had slight symptoms in the other foot. She gave no history of definite trauma other than that the ankle turned easily and would sometimes cause temporary discomfort. The foot was strapped on two occasions before she was referred to me. Strapping and a metatarsal pad were used with only slight relief. On October 3 she sprained the right ankle as she jumped from a boat. On October 5, x-ray examinations were made primarily to rule out fracture. X-ray report: "Antero-posterior and lateral films of the right foot show a rather marked haziness and decalcification of the tarsal bones, the bases of the metatarsals and also the heads of the metatarsals and phalanges of the big toe. There is also one small area of decreased density in the shaft of the tibia anteriorly just above the ankle. These changes are due, I believe, to an infectious arthritis." Two days later patient was hospitalized and the extremity elevated to relieve swelling. A snug-fitting, unpadded cast was applied, and after two or three days, a walking iron incorporated. She was then allowed to walk and for a few days the toes were swollen slightly and slightly cyanotic. This disappeared after a few days and patient had no pain. She wore the cast approximately six weeks, after which time x-ray films showed increased atrophy. She used crutches and did not bear weight. The ankle and foot were swollen and cyanotic; skin glossy and cold above the knee. Contrast baths, diathermy, elastic bandage and heat pad were used without very much improvement. The nature of the disease was explained in detail and she was told that it would be a slow process. In view of the fact that her father and sister had tuberculosis, although arrested, she feared this was the cause of her trouble. Repeated skin tests were negative. About January 15 she went to Baltimore and a lumbar sympathectomy was performed. I saw her about two weeks later. The swelling and cyanosis had disappeared. She had some pain but said it was not much less. There was still a distinct difference in the local temperature of the two extremities. I last saw her April 15, 1942. There was no swelling or tenderness. The temperature was the same on both legs. She uses no support and bears full weight. She stated that she only has some slight discomfort after walking for long distances.

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DISCUSSION OF SYMPOSIUM ON SURGICAL PROBLEMS

BY DOCTORS PRUITT, POER-SEAMAN, DAVISON,

TORPIN-MILLER, AND DAVIS

Dr. Chas. H. Richardson (Macon): This has been a very interesting symposium and it contains so much valuable information that anyone who attempts to discuss it can only hope to pick out certain points and sketchily attempt to emphasize them. General surgeons who find patients going to a proctologist for a second operation might well pay attention to relief of pain in anorectal surgery. Preparation of the patient before operation is very important. The type of anesthetic used is of special emphasis because most operations on the rectum can and should be done under some form of local anesthesia. There should be complete relaxation of the sphincter and anal canal. The operation should be done under clear observation. Avoid the use of clamps on the mucocutaneous junction, the old fashioned clamp and cautery operation, also the use of any form of whistle or tube or gauze placed in the rectum after operation. Failure to follow out very careful post-operative therapy will fail to give relief to patients of this type.

In discussing thyroid toxicosis, I would like to emphasize most emphatically the use and abuse of iodine by the average man in medicine. Iodine has no place in the therapy of goiter except in the adolescent type of thyroid and in preparing patients for operation. I think if we could get that message over to the members of the Medical Association of Georgia a great deal less damage would be done to thyroid patients. In regard to the occasion for operation, I would like to add to Dr. Davison's indications the one of prophylaxis. I think we should emphasize that every goiter in a patient who is 23 years old, or older, is not going to get well by medical treatment and it is only going to bring that patient to grief eventually. So, to prevent thyrotoxicosis, to prevent thyrocardiac conditions and to prevent development of carcinoma in an encapsulated adenoma, by all means the goiter should be removed surgically. In reference to the amount of gland to be removed, that has always been a mooted question. It is good advice not to remove too much but it is probably better advice not to remove too little. Dr. Hertzler, as you know, has said that the thyroid gland, when it reaches adult life, is no longer needed. That represents a radical point of view, but I am sure those who do thyroid surgery must realize over and over that we have not taken out enough gland in the past to cure the patient. If the whole gland is adenomatous and you leave one-fifth of it, you still leave diseased gland and a large per cent of the patients get recurrences. I have in mind a patient Dr. Davison operated on, removing an adenoma of one lateral lobe. The patient moved to Macon and developed an adenoma on the other side and I operated on her and later she developed adenomas in both stumps and I operated on her a third time and then she still had symptoms of hyperthyroidism; and I may say that after three thyroid

operations on one patient is a pretty good time to stop. If you haven't already cut one of the nerves, you are pretty apt to. I then gave her x-ray treatments and this gave her myxedema and then I gave her thyroid extract and she is comfortable and happy.

In reference to Dr. Torpin's and Dr. Miller's paper, I was interested in the high incidence of backache found in pelvic conditions, namely, 58 per cent. Most of us have been inclined to become rather conservative in our ideas as to the amount of backache that occurs in pelvic conditions. Some men have gone so far as to say pain in the back originates in the back. I do think there is a very definite middle ground and some backache results from pelvic conditions, and I am very interested to hear such careful observers as these two gentlemen report 58 per cent. I am more interested in the discussion of relief of menopausal symptoms by hysterectomy. It is a new thought to me and one which I would be interested in following up.

In Dr. Davis' paper, I wish to emphasize most emphatically the vaginal approach to hysterectomy in the menopausal or older patient. It is not a difficult operation and is accompanied by less mortality and less morbidity than the abdominal approach and gives a simpler method of handling those patients.

Another thing that he mentioned was the advancement operation of the bladder in operating for cystocele.

I would like to call to your attention, as every man who has done any amount of surgery knows, the large number of poor operations for cystocele that all of us have done. Simply incising the lips of the anterior vaginal wall and suturing the opposite sides will not cure cystocele. You have to separate the bladder completely from the cervix, get it up out of the way and develop fascial flaps and bring the sutures not only through the fascia but through the cervix itself and hold the bladder up out of the way before you repair the vaginal wall.

Dr. Poer has given a very interesting paper and he has had a very interesting opportunity and experience in removing a malignant tumor of the thymus and thereby relieving myasthenia gravis. All of us are familiar with Dr. Poer's treatment of myasthenia gravis by thymic procedure but I have seen no report of the cure of the condition by removal of a malignant tumor.

And, finally, Dr. Brown has brought to our attention a very interesting patient. I am sure that in the past I must have seen Sudeck's acute bone atrophy, but I frankly confess I didn't recognize it. The bringing to our attention of conditions of this kind means that in the future those of us who haven't been quite so wide-awake and well-informed will take a little more time and attempt to work out some of these bone diseases better than we have in the past.

Dr. W. A. Selman (Atlanta): Unfortunately, I did not hear all of these papers. Two of the men have sent me reprints of their papers and I am very glad they did because I have received a great deal of information of which I knew nothing before, especially in Dr. Brown's paper. It reminds me of having eyes and seeing not. I had recently and have now a man who suffered an injury

of one of the left carpal bones alighting from a street car. He has had now for three months, I think, a swelling there and I took only one x-ray picture of that and it did not show a fracture. I thought all the time that he was a malingerer. I thought all the time that if that had been his own door instead of a corporation's door, he would have been well a long time ago. In the light of Sudeck's acute bone atrophy, I am going back and x-ray the man's hand again, because he has convinced me that he is suffering pain. There is swelling there. He is not the type of man you would pick for a malingerer, so if this paper, which I was entirely ignorant of, has taught me that one thing and can make me see something that in the past I have not been seeing, I am fully repaid for hearing this paper.

I can not report any treatment of this case except one thing—I did give him sulfadiazine tablets, not knowing what else to do. That has cured so many things when I was at a loss to know what to do, and the next time he came in he said the pain was largely relieved for a while. However, when I go back, I am going to x-ray again and see if I have a case of Sudeck's acute bone atrophy.

In regard to anorectal conditions discussed in Dr. Pruitt's paper, I have made a lot of mistakes in anorectal surgery. I did a slight hemorrhoid operation on one of my own family. I thought it was such a little thing, I would do it with the least amount of pain I could. I neglected to dilate the sphincter muscle. I have never seen such pain following an operation. Of course that is the way it always is when you are doing something for your own family. The pain was intense. I thought if I had only operated as I usually do—given a thorough dilatation and had done the job thoroughly, I would have gotten better results.

Right recently I had a patient with thromboid hemorrhage. There were several thrombi. As usual in the office, I simply put on a few drops of local anesthetic and evacuated the clot, and that usually relieves the pain. However, this man suffered intense pain and came back the next day suffering more than usual. Then I used a local anesthetic, nupercaine and oil, about the area and his pain stopped immediately and stayed stopped. I have used that some and I find it very good in postoperative pain from rectal conditions. This anesthetic absorbs slowly and can be used for an anesthetic for a period of two or three days.

I am sorry I did not get here in time to hear the other papers. I enjoyed reading those two. I thank you for the privilege of discussing them.

Dr. J. H. Sherman (Augusta): May I devote my few remarks to the papers of Dr. Pruitt and Dr. Davison.

As Dr. Pruitt has very frankly stated, his paper is a dogmatic citation of practical points in the treatment of certain anorectal diseases. His *Do's* and *Don't's* are quite obviously based on his wide experience, but they are just as obviously based also on sound surgical principles. Much of what he has said about pain following surgery on the anus and lower rectum could perhaps be summed up by the old surgical dictum—gentleness in the handling of tissue. I am sure we all give lip service to this, but it is often remarkable how we, as surgeons,

approach an abdominal operation with this principle uppermost in our minds and then turn right around and burn, stretch and tear the even more sensitive tissues about the anus with utter disregard of this same basic principle. The argument as to whether or not a "whistle tube" should be used, following anal operations, is ancient. The basis of its use is the relief of lower colon distention, which no doubt it will accomplish. However, as a foreign body, constantly stimulating the sphincter to spasmodic contractions, we feel that its disadvantages as a pain producer is greater than the advantage of perhaps allowing for a more free passage of gas.

Proper exposure is a prime requisite of any operation and it is this particular point which should influence one as to when and how much the anal sphincter should be dilated. Operating blindly is dangerous in any surgical procedure.

All of us have our own pet ideas as to the kind of anesthesia to be used in anorectal surgery. That is as it should be. There is a wide range of choice. I do feel that in this type of surgery the agent must give relaxation as well as anesthesia. We have found caudal and transsacral anesthesia satisfactory.

Dr. Davison's plea for surgery in the management of toxic goiter can rest on its own merits. Granting that we are ignorant of all of the many tissue changes which occur in this disease which we speak of as toxic goiter and granting that the thyroid does not perhaps actually initiate these changes the fact remains that the results from surgery in this condition will stand the closest scrutiny.

The casual and unstudied use of iodine in patients with goiters is, as Dr. Davison has mentioned, unfortunate for a number of reasons. May I emphasize two: one difficulty that is always present in these patients is the difficulty of diagnosing the early or borderline cases. Most of these are girls or young women who have had their attention called to an enlargement of their neck and subsequently exhibit symptoms which may or may not be evidences of thyrotoxicosis. The differentiation here is most commonly between true thyrotoxicosis and a neurosis focused on the known thyroid enlargement. Under the best of conditions this differentiation is difficult and the difficulty becomes increasingly greater if the patient has had casual iodine therapy before proper study.

Another decision which often confronts the surgeon in the management of toxic goiters is whether or not a two staged operation will be necessary. Here again the indiscriminate use of iodine may confuse the problem. It remains the surgeon's responsibility to decide whether a sub-total thyroidectomy can be done at one sitting or whether two or more stages may be advisable. Many factors will influence this decision but certainly the general appraisal of the patient as an operative risk before any preoperative preparation is begun is one of the most important. This appraisal may be faulty if it is recorded after iodine therapy.

May I thank all of the essayists for their excellent papers and for the privilege of discussing them.

Dr. W. E. Person (Atlanta): I wish to discuss Dr. Pruitt's paper, because it is full of common sense, and anyone can profit by following his advice. For several years I have used a 25 per cent solution of alcohol in water to secure prolonged anesthesia in anorectal surgery. After novocain infiltration the alcohol is injected deeply. There are three points to be remembered in employing this agent: 1, if any is in the skin or mucous membrane a slough is to be expected; 2, should alcohol be injected outside of the previously novocainized area sharp pain for a few minutes will be felt; and 3, a strength not exceeding 20 per cent is best for use into the sphincter. Stronger solutions are liable to produce a fibrosis, hence some weakness of the muscle. This method secures an anesthesia lasting 36 to 72 hours, and enables the patient to follow his usual routine. It is ideal for office work. Occasionally when too much alcohol has been given a mild intoxication will occur. A vegetable oil containing an anesthetic and benzol alcohol produces a longer anesthesia. Secondary abscesses follow this plan in about 5 per cent of the cases. These complications are due to a faulty technic. The oil should be expelled a drop at a time. When expressed in large amounts it collects and acts as an irritant. Healing is delayed as the nerve supply is interrupted for a long time.

Dr. T. C. Davison (Closing): I wish to correct Dr. Richardson who misunderstood me; I said be careful how much thyroid tissue you remove in a growing child and showed a picture to illustrate the mistake in removing too much thyroid from a girl seven years of age, who developed postoperative myxedema. It matters very little how much you remove from an adult, as an adult needs very little thyroid gland.

In regard to the iodine question in a growing child, if iodized salt is used I think that would be sufficient prophylaxis against goiter.

In regard to recurrences, that will require quite a discussion. Dr. Sherman referred to repeated operations. In toxic goiter if a total thyroidectomy is performed (in an adult) first, no further operations will be necessary, but in doing a total operation one must remember that he is in dangerous territory as you are working in the neighborhood of the parathyroid bodies and the recurrent laryngeal nerves. If one stays in front of the capsule while operating you will be safe and will not injure the nerve nor the parathyroid bodies which are located posterior to the capsule.

Dr. Hertzler states in one of his books that in regard to nodular goiter, 50 per cent become toxic, 10 per cent die with cancer, and the balance will die with heart disease, so what are we waiting for?

Dr. Richard Torpin (Augusta): These closing remarks are dogmatic and express conclusions drawn from this follow-up study as well as from the study of results of technical procedures at the time of the operations.

One of the common complaints of gynecologic patients is the tendency to lose urine on coughing or exerting. Removing a large pelvic tumor often relieves this per se, but in other patients, especially those who have cystocele and urethrocele, a special additional operation

(Continued on page 254)

THE PRESIDENT'S PAGE

CAN GEORGIA DOCTORS LIGHTEN THEIR LOAD?

At the outbreak of World War I, Dr. Eugene Murphey, of Augusta, in addressing the Medical Association of Georgia in Augusta, opened his address with these words: "My country is at War—Am I?" Well might we, in World War II, ask ourselves the same question. Also, might we ask why fate has caused one to be born forty years too soon, another to be handicapped by a physical disability—whatever our age, whatever our physical condition, we are all American citizens and our lives and liberties are challenged. Forty per cent of the doctors of America have already offered their services and been accepted to care for our ten millions of men who have been chosen to defend us—on the land, on the sea and in the air.

Georgia was short of doctors before this war. Now 60 per cent have to take on the work of the 40 per cent already gone, and before long it is estimated that 50 per cent will carry the home load! Let us survey this situation and see what agencies can come to our rescue.

1. The doctors themselves can do much in the way of planning their work so that they can see more patients at their offices, clinics and hospitals and make fewer house calls. These are time-consuming but, owing to the very nature of the case, often necessary. However, these calls can usually be systematized and made sometime during the day, outside of office hours.

2. The patients must realize that there is a shortage of doctors, and that if what doctors are left are to keep their health, they cannot work day and night. Therefore, requests through the public press stating not to call a doctor in the late hours of the night except in real emergencies.

3. Communities must realize that they owe their citizens something in providing medical care. Not long since hospitals in the cities and towns throughout the State could accommodate most of the patients in

the surrounding territory. This is no longer the case. Hospital insurance and improved financial status of the public in general have so congested the hospitals that it is with difficulty that hospital beds can be found available for emergencies.

The laws of Georgia have recently been amended so as to permit counties to appropriate funds for the care of the indigent sick either in neighboring hospitals or to enable counties to build their own hospitals. This was a forward step in providing medical care for every citizen, rich or poor, and each county or group of counties should ask, through its civic leaders, what they are doing toward the medical care of their own citizens.

4. The Georgia State Board of Health is doing a wonderful work in preventive medicine and eradication of many of the most deadly diseases within our State. Typhoid fever has been almost eradicated, malaria greatly reduced, venereal diseases brought under the spotlight of publicity and all health agencies are concentrating their activities against them.

5. The Federal Government has made many liberal grants to the constituent states toward prevention and eradication of disease. Especially in child welfare, malarial control, diphtheria and venereal diseases.

6. The Woman's Auxiliary to the Medical Association of Georgia and their local chapters, through their health programs, their contacts with the public through many sources, as parent-teacher groups, women's clubs and schools, present educational and health films that teach young and old how to prevent diseases, how to control some and cure others.

All these agencies tend to lighten the load of the doctors, and by every one being considerate of his fellowman, by planning and working together the people of Georgia will receive adequate medical care during the war, and when peace returns medical affairs will still be administered by medical men.

W. A. SELMAN, M.D.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

JULY, 1943

**PHYSICIANS OF GEORGIA RESPOND
TO NATION'S CALL**

Three years have passed since the American Medical Association called on the Medical Association of Georgia and the medical associations of the other states and insular possessions of the United States of America to cooperate in a medical preparedness program. That call was transmitted immediately to the various county medical societies of Georgia, whose members responded with the graciousness befitting the medical profession of our time.

Later, when our country declared that a state of war existed and that physicians would be needed for immediate service in the armed forces, the Medical Preparedness Committee and officers of the American Medical Association gave freely of their time and efforts in the planning and putting into operation what became finally the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, a unit of the War Manpower Commission with headquarters in the nation's capital and with representatives in each of the states and insular possessions. The personnel of these various units consist mainly of men and women experienced in medical organization work.

The Georgia Committee for the Procurement and Assignment of Physicians has spent many hours in the arduous work of trying to determine whether or not a physician was essential for work in his community, or was available for duty with the armed forces or the Public Health Service. All told, the work of the committee has been pleasant, but now comes the time when certain deferments of physicians to remain at home can no longer be made. New appraisals and new classifications must be made, and are being made; and needless to say each physician in the State now must cooperate fully in the program to win the

war. Indeed, it is the duty of each physician residing in Georgia now to reappraise himself or herself: as a physician, as a citizen, and as a patriot. If he or she will do this — keeping in mind that the present war must be won at the earliest possible moment — and continue cooperation with the representatives of the Procurement and Assignment Committee for Physicians, and the Selective Service boards, then it is certain that sufficient trained medical manpower will be continued to meet the needs of our State and our county.

**POST-WAR PLANNING FOR
MEDICAL CARE**

Physicians as a group have been poor business men and women. They are on the "sucker lists" of all promoters. Many of the most successful of them have so-called "gilt-edged" stocks and bonds, often foreign in nature, which were sold them by sleek-tongued salesmen, most of whom were friendly to the extreme. And some of them whose years of toil bring them finally to the breaking point in life find it difficult to make ends meet, and indeed a few of them really face their last years on earth without the actual necessities for comfortable living.

But it can be said of all good physicians that their first thoughts have been devoted to the welfare of their patients; that the making of money has been a secondary consideration with them. Pain and birth and death become a part of each physician's life, and all physicians must practice equanimity to the degree that no patient will suffer because of his or her financial position in life. And all good physicians have desired more evenness in the distribution of medical care: in making available to all the peoples what the medicine of today has to offer them. The trouble in such distribution of medical care has been largely a problem of economics and, as has been indicated, the average physician in his or her generous method of dealing with all classes of people, including the smooth-tongued stock or bond salesman, failed to tell Mr. and Mrs. Public and the little Publics what they really needed.

True, sporadic efforts have been made

by the medical profession to point out to the people of this country that they were not getting all that was offered by the medicine of today; that they themselves had to face the facts and at the same time pay most of the bill of any proposed program to make medical care fully available to them. Few of these efforts and plans have met success, but all have furnished experience data which can be used to advantage in formulating certain necessary guiding principles for the plans of medical care which are surely to come in the post-war planning for medical care for all the people. No doubt some of the plans offered will not receive the approval of many physicians, but each physician should remember that our form of government calls for "government of the people, by the people and for the people," and that it is his or her responsibility to join with his and her colleagues — through county, state and national medical organizations — and work to the end that each person will be the recipient of adequate medical care.

FIND MEANS TO CONTROL MALARIA IN TREATMENT OF NEUROSYPHILIS

INVESTIGATORS DETERMINE WHEN TO ADMINISTER THIOBISMOL TO LENGTHEN THE INTERVALS BETWEEN SEIZURES OF THE DISEASE

A solution to the problem of when to administer thiobismol so as to reduce the frequency of paroxysms or seizures of malaria when the infection is used as a treatment for syphilis of the central nervous system is reported in *The Journal of the American Medical Association* for June 19 by Martin D. Young, Sc.D.; Sol B. McLendon, M.D., and Roy G. Smarr, M.D., Columbia, S. C.

The three men explain that "one of the problems of the malarial therapy of neurosyphilis has been the need of a drug to reduce the frequency of the paroxysms without eliminating them altogether. Until recently no drug, including the common antimalarials (such as quinine), has demon-

strated a reliable selective effect, the administration of the drug causing either no change or a total suppression of the paroxysms. In 1939 W. F. Schwartz found that thiobismol would convert *Plasmodium vivax* paroxysms from a quotidian (daily) periodicity to a tertian (alternate days) periodicity. Subsequently other workers confirmed this observation. However, the age (measured in the number of hours from the last fever peak) at which parasites are affected and therefore the best time to administer the drug have not been definitely established. . . ."

The principal species of malaria produce characteristic intervals between the seizures.

From their two year observations they say that: "It is possible, therefore, to change quotidian paroxysms of *P. vivax* to tertian by giving 0.1 or 0.2 Gm. of thiobismol, preferably the former amount, about twenty-four hours before or after the paroxysms to be eliminated. A convenient time to administer the drug is at the fever peak. The quotidian occurrence of paroxysms often taxes the patient so severely that it is impossible for him to undergo a full course of twenty paroxysms. Changing the paroxysms to a tertian occurrence better enables the patient to withstand a full course of malaria.

"Quite often quinine will not prevent the occurrence of paroxysms for several days after it has been started. It has been found useful here in terminating an infection to give an injection of thiobismol the day on which quinine is started. The thiobismol will usually prevent the occurrence of a paroxysm the following day. After that the quinine controls the infection.

"This combination of thiobismol and quinine might be found useful in malaria infections generally."

Their results with two other types of the disease, *P. malariae* and *P. falciparum*, were unsatisfactory.

The American Congress of Physical Therapy will hold its twenty-second scientific and clinical session September 8-11, inclusive, at the Palmer House, Chicago. The annual instruction course will be held from 8:00 to 10:00 A.M. and 1:00 to 2:00 P.M. during the session.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1943-44

President—Frieda Grefe, R.N., Savannah.

First Vice-President—Sister Cornile, Atlanta.

Second Vice-President—Mrs. Mae M. Jones, Milledgeville.

Secretary—Mrs. Esther Watts, Columbus.

Treasurer—Jane Van De Vrede, Atlanta.

Executive Secretary—Durice Dickerson, R.N., Headquarters, 131 Forrest Ave., N. E., Atlanta; Tel. WA. 8911

President—Georgia League of Nursing Education, Ruth Babin, Atlanta.

President—Georgia State Organization of Public Health Nursing, Vera Mingledorff, Griffin.

Chairman, Private Duty Section, G.S.N.A.—Mrs. Mildred Pryse, Atlanta.

THE STATE NURSING COUNCIL REPORTS ON THE RE-SURVEY

FRIEDA GREFE, R.N.

Savannah

*President, Georgia State Nurses'
Association*

*Chairman, State Nursing Council
for War Service*

How many more nurses can Georgia spare to go with the Armed Forces? Who shall go and who shall stay? How can Georgia get the most effective service from the available nurses in the state?

To help answer these questions, the Georgia State Nursing Council for War Service launched an inventory in January to determine Georgia's nursing power. This was part of a nation-wide effort to find and enlist the help of every known nurse in the United States, whether active or inactive, so that the nursing needs of the military and civilian populations at home and abroad will be met in the best possible way. Thanks to our District Associations, who assumed the full responsibility of mailing and tabulating the survey cards, this inventory was completed April 14th.

Number of cards mailed.....	4,712
Number cards returned.....	3,469
Actively engaged in nursing.....	1,306
Inactive but available.....	340
Inactive and not available.....	261

Information supplied by the survey is basic to present and postwar planning for nursing. It enables the State and District Nursing Councils:

1. To know where nurses are, so that should disaster or other emergency occur, time will not be wasted in hunting for nurses who can give needed care.
2. To estimate which areas have too many nurses; which not enough, and so guide nurses who are ready to serve elsewhere, to under-nursed areas.

The Supply and Distribution Committees of the State and District Nursing Councils have a major responsibility, this problem of equitable distribution. It will require the unselfish interest and action of hospitals, public health agen-

cies, patients, doctors and nurses. It is important that there be wise planning, just distribution and intelligent use of professional and auxiliary nursing services.

The Council — with its representatives of all concerned with nursing (physicians, hospital administrators, outstanding citizens with their consumer interest, educators, nursing in all its phases, professional and other organizations) is making every effort to keep in balance the supply and demand for nursing service.

We urge all physicians, as well as lay people, to arm themselves with information on many points and to ask themselves some of these questions: Is there a shortage of nurses in their own hospitals? Is there a shortage of student nurses coming into these hospitals? Is the attitude of the Boards of Manager such as to encourage the enrollment of a fair proportion of their nurses for service with the armed forces? Has everything possible been done to use retired nurses—married nurses—over-age nurses—nurses' aides?

To meet the needs on so many nursing "fronts" every resource in the community will need to be tapped, and without sacrificing the fundamentals of good nursing. The career of nursing has been called a war job with a future and we feel that when the public becomes fully aware of all it can do to assist the nursing profession, that this country will be able to meet the demands of this war emergency and the equally heavy ones of the post war period.

Today's nursing needs require sacrifice. Can we in Georgia inject sharing into the sacrifice, so that it will not fall too heavily on patient or nurse or hospital management; so that the ill and wounded of our armed forces as well as the people at home will have safe nursing care?

The Georgia State Nursing Council for War Service wants, with citizen, medical, hospital administration and nursing participation, to find the answers to these questions which will represent response with a conscience.

In another concerted attack on infantile paralysis, a special unit to study exactly what happens in the human body when the disease strikes and the methods of treating it, is being set up at the University of Minnesota, Minneapolis. For this program of investigation, the National Foundation has approved a five year grant of \$175,000 to the University of Minnesota.

WOMAN'S AUXILIARY

President—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.

President-Elect—Mrs. W. T. Randolph, Winder.

First Vice-President—Mrs. Ralph Fowler, Marietta.

Second Vice-President—Mrs. L. W. Williams, 135 East 45th St., Savannah.

Third Vice-President—Mrs. Richard Binion, Milledgeville.

Recording Secretary—Mrs. Chas. Usher, 6 East Liberty St., Savannah.

: OFFICERS 1943-44

Corresponding Secretary—Mrs. H. H. Askew, 1329 Springdale Road, Atlanta.

Treasurer—Mrs. Lucius N. Todd, Rural Delivery No. 2, Augusta.

Historian—Mrs. W. W. Puett, Norcross.

Parliamentarian—Mrs. Lee Howard, 625 East 44th St., Savannah.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N.W., Atlanta.

PRE-CONVENTION BOARD MEETING MAY 11, 1943

The executive board of the Woman's Auxiliary to the Medical Association of Georgia met on Tuesday, May 11, at the Academy of Medicine in Atlanta, Mrs. J. Lon King, of Macon, president, presiding. Mrs. J. Harry Rogers was appointed to act as secretary.

Mrs. King called the meeting to order and gave a prayer, asking members to do their best for their state and their country in the crisis which we face today.

The secretary read a letter from Dr. Frank Boland, president of the Crawford W. Long Memorial Association and, on motion of Mrs. C. W. Roberts, seconded by Mrs. James N. Brawner, the board voted to ask members to wear a red carnation on Doctor's Day, March 30, in honor of Dr. Crawford W. Long.

A letter was read from the advisory committee of the Medical Association to the Woman's Auxiliary approving the Doctors' Aide Corps, which was organized by the Woman's Auxiliary to the Fulton County Medical Society.

A letter was read from Mrs. Bruce Schaefer, of Toccoa, president-elect of the Woman's Auxiliary to the Medical Association of Georgia, tendering her resignation due to the fact that she is with Dr. Schaefer on the Pacific Coast. On motion of Mrs. Leonard Massengale, of Lumpkin, seconded by Mrs. H. G. Banister, of Ila, it was voted to accept Mrs. Schaefer's resignation with regret. Mrs. King suggested that a telegram be sent to Mrs. Schaefer expressing regret at her absence and her inability to serve as president, and members of the board approved this.

A nominating committee was then elected, composed of Mrs. Lee Howard, of Savannah, nominated by Mrs. James N. Brawner, of Atlanta, seconded by Mrs. H. G. Banister, Ila; Mrs. Ralph Chaney, of Augusta, nominated by Mrs. William Dancy, of Savannah, seconded by Mrs. Eustace Allen, of Atlanta; Mrs. J. Harry Rogers, of Atlanta, nominated by Mrs. H. M. Kandel, of Savannah, seconded by Mrs. Marion Benson, of Atlanta (these three representing the executive board) and the following from the membership-at-large: Mrs. O. F. Keen, of Macon, nominated by Mrs. H. G. Banister, of Ila,

seconded by Mrs. Leonard Massengale, of Lumpkin; Mrs. Edwin Allen, of Milledgeville, nominated by Mrs. Lucius Todd, of Augusta, seconded by Mrs. J. E. Penland, of Waycross; Mrs. W. F. Reavis, of Waycross, nominated by Mrs. J. E. Penland, of Waycross, seconded by Mrs. Ralph Fowler, of Marietta; and Mrs. F. B. Lindley, of Powder Springs, nominated by Mrs. W. W. Puett, of Norcross, seconded by Mrs. James N. Brawner, of Atlanta.

Mrs. H. G. Banister, of Ila, chairman of the Student Loan Fund, read the revised rules as formulated by the committee. These are attached to this report. Mrs. Banister moved the acceptance of the report, Mrs. Ralph Fowler, of Marietta, seconding the motion, which was carried.

The president appointed the following committees:

Auditing

Mrs. D. R. Longino.....	Atlanta
Mrs. W. M. Flanagan.....	Waycross
Mrs. R. E. Leonard.....	Augusta

Courtesy

Mrs. W. D. Hall.....	Calhoun
Mrs. W. F. Reavis.....	Waycross
Mrs. W. W. Puett.....	Norcross

Resolutions

Mrs. E. R. Harris.....	Winder
Mrs. Carl Anderson.....	Macon
Mrs. C. L. Ayers.....	Toccoa

Awards

Mrs. Lee Howard.....	Savannah
Mrs. A. H. Bunce.....	Atlanta
Mrs. W. R. Dancy.....	Savannah

Meeting adjourned.

EMILY B. ROGERS,
Secretary Pro-tem.

NINETEENTH ANNUAL CONVENTION*First Session*

May 12, 1943

The nineteenth annual convention of the Woman's Auxiliary to the Medical Association of Georgia was called to order by the President, Mrs. J. Lon King, at the Academy of Medicine, Atlanta, May 12, 1943, at 9:45 A.M.

The invocation was offered by Dr. William V. Gardner, Pastor First Presbyterian Church. Welcome to the guests was expressed by Mrs. Edgar H. Greene, Atlanta, President, Woman's Auxiliary to the Fulton County Medical Society. Mrs.

W. M. Flanagan, of Waycross, responded.

The President asked Mrs. James N. Brawner to serve as Parliamentarian, in the absence of Mrs. S. T. R. Revell, and Mrs. Charles Usher to act as secretary pro-tem in the absence of Mrs. J. C. Metts.

The following distinguished guests were introduced by Mrs. Eustace A. Allen:

Mrs. J. Lon King, President; past presidents: Mrs. C. W. Roberts, Mrs. J. N. Brawner, Mrs. E. R. Harris, Mrs. W. R. Dancy, Mrs. H. G. Banister, Mrs. Ralph Chaney, Mrs. Lee Howard, Mrs. Marion T. Benson, Mrs. J. E. Penland. State chairmen: Mrs. H. M. Kandel, Mrs. W. T. Randolph.

Mrs. James N. Brawner, acting parliamentarian, read the rules governing the convention, which were adopted as read.

Dr. James A. Redfearn, president of the Medical Association of Georgia, addressed the Auxiliary on "Origin of the Woman's Auxiliary and How It May Further Assist."

Mrs. Shelley Davis, chairman, introduced the pages for the morning: Mrs. H. Crawford, Mrs. J. C. Waters, Mrs. Homer Maulding, Mrs. M. P. Mullen, Mrs. Harvey Hamff, Mrs. Chester Fort.

Mrs. J. Harry Rogers gave the report of the pre-convention executive board meeting.

Mrs. Edgar H. Greene reported the hostess auxiliary's plans for entertainment and Mrs. Clifton G. Kemper was introduced as timekeeper.

Mrs. W. M. Flanagan made a motion to accept reports of District Managers and County Auxiliary Presidents as a whole, seconded by Mrs. W. R. Dancy. Motion carried.

Reports were heard from the following Districts and Counties:

Fifth District—Mrs. J. Harry Rogers

Sixth District—Mrs. W. M. Cason

Eighth District—Mrs. W. M. Flanagan

Ninth District—Mrs. W. T. Randolph

Tenth District—Mrs. G. L. Loden

Fulton County—Mrs. Edgar Greene

Chatham County—Mrs. L. W. Williams

Baldwin County—Mrs. Edwin Allen

Barrow County—Mrs. E. R. Harris

Bibb County—Mrs. Carl Anderson

Gordon County—Mrs. W. D. Hall

Jackson County—Mrs. Ralph Freeman

Randolph-Terrell Counties—Mrs. L. R. Massengale

Richmond County—Mrs. Claude E. Tessier

Stephens County—Mrs. C. L. Ayers

Ware County—Mrs. J. E. Penland

Washington County—Mrs. W. M. Cason

Burke-Jenkins-Screven Counties—Mrs. Cleveland Thompson

Dr. J. E. Paullin, president-elect of the American Medical Association and Rear Admiral Luther A. Sheldon, U. S. N., assistant chief of surgery, Washington, D. C., were introduced to the Auxiliary. Admiral Sheldon commended the work of the Auxiliary.

Mrs. G. F. Spearman gave the following registration report:

Total registration	85
State Officers	5
Past Presidents	12
State Chairmen	11
District Managers	2
County Presidents	3
Delegates	15
Guests	5
Members	80

A communication was read from the advisory committee expressing approval of the wartime program of the Doctors' Aide Corps.

Mrs. H. G. Banister, chairman of the Student Loan Fund Committee, read the proposed revised rules governing the committee. Mrs. Ralph Chaney moved that the report be voted on as a whole, motion carried. Mrs. H. G. Banister moved the acceptance of the rules included in her report. Motion carried.

The minutes of the Mid-Summer Executive Board Meeting were read as information.

The president announced the appointment of the following committees:

Nominating

Mrs. Lee Howard, Chairman.....	Savannah
Mrs. Ralph Chaney.....	Augusta
Mrs. J. Harry Rogers.....	Atlanta
Mrs. O. F. Keen.....	Macon
Mrs. Edwin Allen.....	Milledgeville
Mrs. W. F. Reavis.....	Waycross
Mrs. F. B. Lindley.....	Powder Springs

Auditing

Mrs. D. R. Longino.....	Atlanta
Mrs. W. M. Flanagan.....	Waycross
Mrs. R. E. Leonard.....	Augusta

Courtesy

Mrs. W. D. Hall.....	Calhoun
Mrs. W. F. Reavis.....	Waycross
Mrs. W. W. Puett.....	Norcross

Resolutions

Mrs. E. R. Harris.....	Winder
Mrs. Carl Anderson.....	Macon
Mrs. C. L. Ayers.....	Toccoa

Awards

Mrs. Lee Howard.....	Savannah
Mrs. Allen H. Bunce.....	Atlanta
Mrs. W. R. Dancy.....	Savannah

A telegram was read from Mrs. Bruce Schaefer expressing her regret at being unable to serve as president for 1943-1944.

There being no further business the meeting was adjourned at 12 o'clock.

ROSE S. USHER,
Secretary Pro-tem.

NINETEENTH ANNUAL CONVENTION

Second Session

May 13, 1943

The Second Session of the Nineteenth Annual Convention of the Woman's Auxiliary to the Medical Association of Georgia was called to order by the president, Mrs. J. Lon King, at 9:30 A.M., Thursday, May 13, 1943.

Dr. Lester Rumble, pastor of St. Mark's Methodist Church, Atlanta, offered the invocation.

Mrs. William M. Dunn, president-elect of the Woman's Auxiliary to the Fulton County Medical Society, gave a message of welcome, to which Mrs. W. D. Hall, Calhoun, responded.

The minutes of the First Session of the Nineteenth Annual Convention were read and approved. The president appointed the following committee to approve the minutes of the Second Session: Mrs. W. R. Dancy, Mrs. Cleveland Thompson, Mrs. H. M. Kandel.

The report of the meeting of the Auxiliary to the American Medical Association was given by Mrs. Allen H. Bunce, and Mrs. James N. Brawner reported on the meeting of the Auxiliary to the Southern Medical Association.

Standing committee reports were read and accepted as follows:

First Vice-President, chairman, Health Education, Mrs. H. M. Kandel.

Treasurer, Mrs. Lucius Todd.

Third Vice-President, chairman, Scrapbook, Mrs. Ralph Fowler.

Doctor's Day, Mrs. Leonard R. Massengale.

Research in Romance of Medicine, Mrs. W. T. Randolph.

Student Loan Fund, Mrs. H. G. Banister.

Press and Publicity, Mrs. J. Harry Rogers.

Jane Todd Crawford Memorial, Mrs. Ralph Chaney.

Archives, Mrs. Eustace Allen.

Exhibits and Awards, Mrs. Edgar Shanks.

Revisions, Mrs. James N. Brawner, Sr.

Dr. W. A. Selman, Atlanta, president-elect of the Medical Association of Georgia, addressed the Auxiliary on "The Call and the Answer of the Woman's Auxiliary."

In the absence of Mrs. Wallace Bazemore, chairman, Mrs. James N. Brawner conducted memorial services in memory of:

Mrs. J. S. Howkins, Savannah

Mrs. Dawson Allen, Sr., Milledgeville

Mrs. Frederick Wahl, Savannah

Mrs. Floyd McRae, Sr., Atlanta

Mrs. T. P. Waring, Savannah

Mrs. C. Y. Bailey, Savannah

Mrs. H. R. Slack, LaGrange

Mrs. J. N. Brawner moved that memorial flowers be sent to Mrs. J. Bonar White, past president of the Auxiliary, who is quite ill. Motion carried.

Dr. James N. Brawner, Sr., chairman, gave a report of the Advisory Committee to the Woman's Auxiliary. A rising vote of thanks was given Dr. Brawner for his nine years of service.

Greetings were extended the Auxiliary by Dr. J. E. Paullin, president-elect of the American Medical Association.

Dr. T. F. Abercrombie, Director of the Georgia Department of Public Health, spoke on "Georgia's Public Health Problems," namely: 1, Venereal Disease; 2, Maternal Care; 3, Nutrition;

4, Mental Hygiene; 5, Health Education of the Youth.

Mrs. H. M. Kandel occupied the president's chair while the president, Mrs. J. Lon King, gave her report of the year's work. Mrs. Harry Rogers moved that the report be accepted with appreciation and a rising vote of thanks. Motion carried.

Mrs. D. R. Longino, chairman Auditing Committee, reported the treasurer's books were examined and perfect in every detail.

Mrs. G. F. Spearman gave a final report of registration:

Total registration	120
Past Presidents	14
State Officers	5
State Chairmen	11
District Managers	4
County Presidents	4
Delegates	19
Members	115
Guests	5

Mrs. E. R. Harris, chairman Resolutions Committee, reported the following resolutions, which were accepted by the Auxiliary:

Whereas, the Student Loan Fund has increased to the amount of \$2,805.09,

Whereas, the amount generally loaned for current year does not exceed \$1,000,

Therefore, Be It Resolved, That the Woman's Auxiliary to the Medical Association of Georgia purchase with this fund a War Bond to the amount of \$750.00, said bond to be kept as part of the Student Loan Fund. This bond to be purchased by the treasurer of the Auxiliary.

Mrs. E. R. Harris moved the adoption of resolution, seconded by Mrs. H. G. Banister. Motion carried.

Whereas, It is considered that the program of Health Education proposed by the Medical Association of Georgia needs added emphasis especially at this time, to meet the needs of the Auxiliary,

Be It Resolved, That it is deemed wise to substitute for the "Objectives" a program of Health Education,

Be It Further Resolved, That a committee consisting of the first vice-president who is chairman of Health Education; chairman of Public Relations and chairman of Visual Education, be formed with the incoming Auxiliary president.

Be It Further Resolved, That these three chairmen, above mentioned, with the incoming Auxiliary president, meet as soon as advisable following each annual convention to formulate a co-operative plan of health education for the ensuing year.

Be It Further Resolved, That this cooperative plan of health education and all state committee plans of work be compiled collectively and sent as a whole to each county president at the beginning of each new auxiliary year.

Mrs. Harris moved the adoption of the reso-

lution, seconded by Mrs. Ralph Chaney; motion carried.

Mrs. Fred B. Rawlings gave a report of the Courtesy Committee, which was accepted and placed on file.

Mrs. Lee Howard, chairman of Committee on Mrs. J. B. White Awards, reported as follows:

Exhibits—Fulton County, honorable mention to Richmond and Baldwin County Auxiliaries.

Scrapbooks—Randolph-Terrell Auxiliary.

The Nominating Committee, with Mrs. Lee Howard chairman, reported as follows:

President—Mrs. Olin S. Cofer

President-Elect—Mrs. W. T. Randolph

First Vice-President—Mrs. Ralph Fowler

Second Vice-President—Mrs. L. W. Williams

Third Vice-President—Mrs. Richard Binion

Recording Secretary—Mrs. Charles Usher

Treasurer—Mrs. L. N. Todd

Historian—Mrs. W. W. Puett

There being no nominations from the floor, the secretary was instructed to cast the ballot. The president declared the ticket of officers as presented by the Nominating Committee elected.

Mrs. J. Lon King installed the new officers and, in the absence of Mrs. Joseph Yampolsky, Mrs. C. W. Roberts presented the Past-President's Pin to Mrs. J. Lon King.

Mrs. Olin S. Cofer announced Mrs. Hulett Askew corresponding secretary and Mrs. Lee Howard parliamentarian.

The Post-Convention Executive Board Meeting was announced by Mrs. Cofer to be held at the Academy of Medicine at 5 P.M. May 13.

There being no further business the president declared the Nineteenth Annual Convention of the Woman's Auxiliary to the Medical Association of Georgia adjourned at 12:30 P.M.

ROSE S. USHER,
Secretary Pro-tem.

POST-CONVENTION BOARD MEETING

May 13, 1943

The Post-Convention Board Meeting was called to order by the president, Mrs. Olin S. Cofer, at 5:15 P.M. at the Academy of Medicine.

The minutes of the Mid-Summer Executive Board Meeting were read and approved. The minutes of the Pre-Convention Board Meeting were read and approved also.

Mrs. Lee Howard, chairman of the Mrs. James N. Brawner Trophy, reported that Baldwin County had won the Brawner Cup with a score of 95 points, Richmond and Fulton Counties tied for second place with a score of 90 points, and Ware County third place with a score of 85 points.

The Student Loan Fund Committee with Mrs. H. G. Banister, chairman, and Mrs. C. E. Tessier and Mrs. H. C. Sauls, were re-elected for the following year.

Mrs. James N. Brawner moved that the president appoint a committee to revise the History of the Medical Auxiliary as given by Dr. J. A. Redfearn, before it is filed. Motion carried. Mrs. C. W. Roberts was appointed chairman and serving with her Mrs. James N. Brawner.

Mrs. Lee Howard moved that the president appoint delegates to the American Medical Auxiliary. Motion carried.

Suggestions were made for State Chairmen.

The meeting adjourned at 6:15 P.M., May 13, 1943.

ROSE S. USHER,
Secretary.

SYMPOSIUM ON SURGICAL PROBLEMS

(Continued from page 246)

should be done. This includes exposure of the urethra and especially the deeper sphincter portion and plication of these structures laterally by mattress sutures.

In all cases in which the culdesac of Douglas is opened, as in total abdominal hysterectomy or vaginal hysterectomy, a preceding thorough washing of the vagina and cervix with plenty of soap and water has cut our postoperative infection incidence to such an extent that infection is rare. In intra-abdominal operations, we believe we have reduced our incidence of postoperative eviscerations to zero in the past two years by the use of tension sutures passed through large buttons lateral to the incision.

Reduction of the above complications still leaves the one that is the lurking horror of all surgeons—pulmonary embolus. We have become convinced that an embolus of the broad ligament veins is almost impossible of formation if there is no stagnant blood to clot. Consequently we elevate the foot of the patient's bed several inches for a period of four days after each operation, and instruct the patient to turn frequently from side-to-side. In the past two years since this process has been in vogue, we have had no pulmonary embolus death and no embolus that we know of. The patients have made no objection to this position but we did have one high infection, a subdiaphragmatic abscess, develop which did not prove fatal. No other serious infection occurred in any of the more than 200 patients so treated.

Backache may be considered to be gynecologic, but it should be low midline and worse at the end of the day after exertion. It should be relieved by rest and often pessaries. It is also found to be worse with the congestion of menstruation. If it conforms to these qualifications, the chances for relief by proper gynecologic operations are good.

A case of human trichinosis following the eating of bear meat is reported in *The Journal of the American Medical Association* for May 22 by Robert S. Westphal, M.D., Albany, N. Y. It is generally considered, he says, that 90 per cent of human trichinosis occurs as a result of the ingestion of pork. Although several infections from bear meat have been reported from California, Dr. Westphal believes his is the first case from New York State.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

A GLANCE AT THE VENEREAL DISEASE PROBLEM IN GEORGIA

Obviously one cannot intelligently plan an efficient public health program of any kind until the nature, magnitude and location of the problem in question are known. In the case of a communicable disease, one must not only be thoroughly familiar with the disease itself, but must be acquainted with the distribution of the disease among the population as regards sex, age, race, occupation, socio-economic status, etc. The public health physician deals primarily with groups of population, rather than individuals, and, armed with the necessary factual information, he can apply control measures most intensively where they are most needed.

Statistics on venereal disease have always been notoriously poor. It is true that the mass blood testing of selectees has given us our most accurate picture of the prevalence of syphilis to date, and it is also true that these figures have put Georgia in a rather bad light. However, it should be remembered that these figures *are* prevalence rates, *not* incidence rates. In considering any chronic disease there is considerable difference between the public health significance of incidence rates and the public health significance of prevalence rates. The selective service figures themselves bear this out. The peak ages of prevalence of syphilis among colored selectees were in the age group 30 to 34, whereas it is well known that the peak age of incidence (occurrence of infection) of syphilis among negroes is relatively early, probably from 20 to 25 years of age. Thus, our prevalence rates represent more or less a "back-log" of old cases, and this is natural, considering the degree to which venereal disease control has been neglected until quite recently.

Most cases of syphilis become relatively non-infectious within four years even without treatment. Consequently, public health workers are interested in the early infectious cases; that is, they are interested in incidence rates rather than prevalence rates. It is the incidence rate, considered from year to year, which reflects the success or failure of the control program. Unfortunately, incidence rates are not so well known as prevalence rates. The fallacy of considering simply "the number of people with positive blood tests" as an index of the problem is further intensified by the simple fact that a very large proportion of patients who fail to take treatment for syphilis until they have had the disease for several years will continue to have positive blood tests after "cure," or maximum benefit from treatment. A surprisingly large number of cases of syphilis are discovered by routine blood tests, the pa-

tient having been unaware of his disease and of the probable date of infection.

These latent cases, along with other cases making up our "back-log," are a medical care problem rather than a public health problem. Many find their way to our free public health clinics simply because no other treatment source is available in their communities.

The State Department of Health operates over 250 free venereal disease clinics. Approximately 45,000 cases of syphilis alone are under active treatment. These clinics are not operated due to any desire on the part of the Health Department to engage in medical care. Health departments treat syphilis for the same reason that they eliminate a dangerous milk supply, i.e., to eliminate a source of infection. Humans constitute our only reservoir of infection and mass infection requires mass treatment which must be done, for the most part, at public expense.

Statistics on gonorrhea are still poor, both as regards incidence and prevalence, but all evidence points to the view that it is many times as prevalent as syphilis.

The private physician is a most important figure in all public health work. Our group of practicing physicians has always been, and we hope will always be, the main wall of protection which stands between the people and sickness and disability. As regards venereal disease patients, the private physician is in a strategic position. He has the confidence of the patient to a degree not possible for the public physician. He can educate his patient better; he can secure better cooperation as to regular treatment; he can secure more confidential information as to contacts and sources of infection; he can more easily secure the cooperation of a married patient in having the marital partner examined. The private physician is a keystone in clinic operation, since treatment in nearly all health department clinics is done by local physicians devoting much time for a very small honorarium. The amount of public health work done by practitioners is variable, but in total it amounts to a great accomplishment and is duly appreciated.

Venereal disease has become a fascinating topic of conversation for many lay people since taboos have been lifted. People have awakened to the seriousness of the problem, but most of them are still totally uninformed as to the nature of these diseases. Fantastic ideas still exist as to methods of transmission; hazards of casual contact; the syphilitic domestic or other employee. It is time that the public be given a practical picture of the problem without fanfare or exaggeration.

It is not intended to minimize the problem.

Even were no new cases to develop in the future, existent cases of syphilis would provide a medical care problem for years to come. However, let's study the problem thoroughly; let's evaluate it sensibly; and let's attack it consistently and logically.

JOHN M. WALTON, M.D., *Director,*
Division of Venereal Disease Control,
Georgia Department of Public Health.

NEWS ITEMS

Dr. James E. Paullin, Atlanta, president-elect of the American Medical Association, spoke at a meeting of the Connecticut State Medical Society, New Haven, May 26.

Dr. C. Mark Whitehead, formerly of Greenville, has moved to LaGrange and will be associated in practice with Dr. W. H. Clark.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, June 17. Dr. Floyd W. McRae spoke on "Highlights of Surgery for 1942"; Dr. Frank K. Boland spoke on "Intrahepatic Gallbladder." The discussion was led by Dr. Jas. J. Clark and Dr. E. Van Buren.

Titles of articles published in The Bulletin of the Fulton County Medical Society, June 17, were: "President's Page" (Advice to the Young Physician) by Dr. George W. Fuller; "Dr. Paullin Installed as President of the A. M. A."; "The Modern Treatment of Perforative Appendicitis" by Dr. T. C. Davison and Dr. A. H. Letton; "Treatment of Pneumothorax from Perforation of Lung," Dr. Robert C. Major; "Recent Trends in Endocrinology," Dr. J. K. Fancher.

A meeting of the staff of the Department of Medicine, Grady Hospital, Atlanta, met on June 20. Report of cases discussed were: "Idiopathic Hypochromic Anemia," "Delirium Tremens" and "Quinidine in Treatment of Arrhythmias."

Dr. E. J. Whelan, Savannah, was elected Chatham County physician by the Chatham County Board of Public Welfare June 11.

The Fulton County Medical Society met on July 1. Lt. Col. Henry J. John, chief of Medical Service, Lawson General Hospital, Atlanta, spoke on "The Etiology and Diagnosis of Diabetes Mellitus"; Dr. E. Van Buren talked on "The Treatment of Diabetes." The discussion was led by Dr. James E. Paullin and Dr. L. Harvey Hamff.

The staff meeting of the Department of Medicine, Grady Hospital, Atlanta, was held on June 27. Titles of reports of cases were: "Carcinoma of Ampulla of Vater," "Ulcerative Colitis; Ileostomy followed by Colectomy"; "Acute Porphyria" and "Principles of a Diagnostic Work-Up."

Dr. Thomas V. Matthews announces the removal of his offices to the Doctors Building, 478 Peachtree Street, N. E., Atlanta.

The staff of the Department of Medicine, Grady Hospital, Atlanta, met on June 13. Titles of cases discussed were: "Glomus Tumor," "Black Widow Spider Bite" and "Epidemic Diseases with Myalgia, Fever, Splenomegaly and Leukopenia."

The Bibb County Medical Society met on the roof of the Doctors Building, Macon, July 6.

The staff of the Department of Medicine, Grady Hospital, Atlanta, met on July 4. Titles of cases discussed were: "Fever in Syphilis," "Agranulocytosis" and "Stupor in the Aged."

Dr. Malcolm P. Mullen announces the removal of his office to 701 Doctors Building, 478 Peachtree Street, N. E., Atlanta. His practice will be limited to internal medicine.

The Southern Medical Association announces that it will hold its Thirty-Seventh Annual Meeting in Cincinnati, Ohio, November 16-18, 1943. Dr. Frank K. Boland, Atlanta, is chairman of the Board of Trustees.

Dr. J. A. Corry, Barnesville, has been appointed colonel on the official staff of Governor Ellis Arnall.

OBITUARY

Dr. Simon Harris Smith, Atlanta; member; Emory University School of Medicine, Emory University, 1928; aged 41; died on June 3, 1943, in a local hospital after a long illness. He practiced medicine in Atlanta during the entire time devoted to his professional career and had many warm friends. Dr. Smith was a member of the Fulton County Medical Society, fellow of the American Medical Association, member of the Hebrew Benevolent Congregation, F. & A. M. and Shrine, past president of the Association of Jewish Doctors and Dentists, and member of the Mayfair Club. Surviving him are his widow, a daughter, Jerilyn Smith; one son, Allan Smith, all of Atlanta. Dr. David Marx officiated at the funeral services conducted at Spring Hill Chapel. Burial was in Greenwood Cemetery.

Dr. Wiley Calvin Kennedy, Talmo; member; University of Georgia School of Medicine, Augusta; 1894; aged 71; died on May 27, 1943. He was born and reared in Hall County. Dr. Kennedy had been a faithful and loyal practitioner for a large number of patients during his successful career. Dr. Kennedy was a member of the Hall County Medical Society, Ninth District Medical Society, Shrine and Baptist church. Rev. E. H. Collins officiated at the funeral services conducted at the Talmo Baptist Church. Interment was in the churchyard.

Dr. William T. Kimsey, Blairsville; Emory University School of Medicine, Emory University, 1898; aged 70; died on June 1, 1943. He was a native of Towns County. He had practiced for more than 40 years. Dr. Kimsey was a member of the Friendship Baptist Church. Surviving him are several nephews and nieces. Burial was in the new Burch Cemetery.

Dr. Benjamin F. Akin, Jackson; member; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1899; aged 74; died on June 12, 1943, of heart disease. He was born in Spalding County. Dr. Akin began the practice of medicine in Jenkinsburg then moved to Jackson. He was a member of the Butts County Medical Society, Jackson Kiwanis Club, Beersheba Primitive Baptist Church and chairman of the Sandy Creek Sacred Harp Singing Association. Dr. Akin was held in high esteem by many friends. Surviving him are one daughter, Miss Lucile Akin; four brothers and three sisters, Elder A. C. Elliott, Elder Robert Barron and Elder J. P. S. Stephens officiated at the funeral services conducted from the Beersheba Primitive Baptist Church. Burial was in the churchyard.

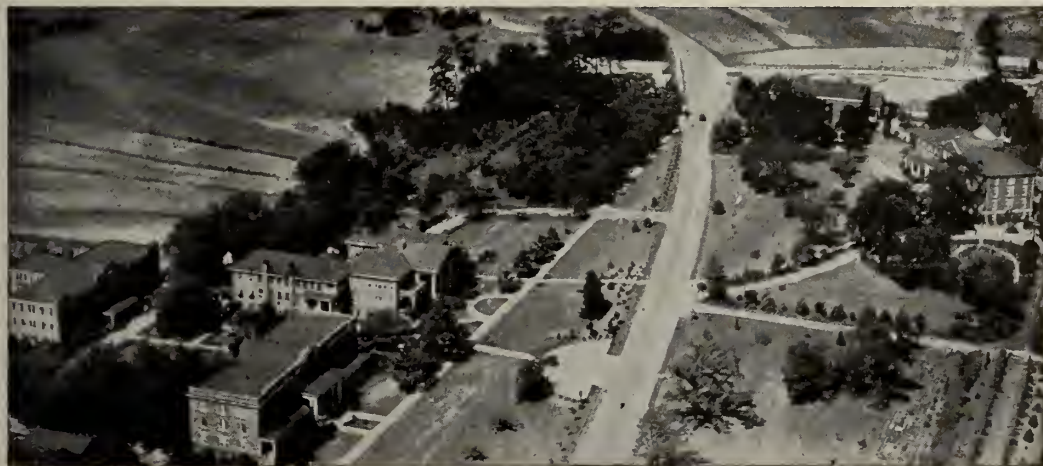
Dr. William Troy Bivings, Jr., Atlanta; member; Cornell University Medical College, New York City; aged 36; died on June 15, 1943, in a hospital in New York. After he served an internship in New York, he became associated in practice with his father. Dr. Bivings was a member of the staffs of Emory University Hospital and St. Joseph's Infirmary, both of Atlanta, and one of the fourth generations of his family to study and practice medicine. He was a member of the Fulton County Medical Society, Southern Medical Association, American Medical Association, Ansley Park Club and the Piedmont Driving Club. Dr. William V. Gardner officiated at the funeral services conducted at Spring Hill Chapel. Burial was in Oakland Cemetery.



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THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

VOL. XXXII

Atlanta, Georgia, August, 1943

Number 8

GERIATRICS IN THE PRESENT ECONOMIC SITUATION

A. J. MOONEY, SR., M.D.
Statesboro

In the present economic arrangements for winning not only a global war, but laying a just foundation for a lasting peace; where not only the greatest concerted effort in manpower production of war materials, food and the building of morale; when wisdom, tempered with experience and understanding and good will to all mankind, the question naturally arises: How can the brain and the brawn of the aging and the aged be used to the greatest advantage?

Let us remember that today seven out of every hundred of our population are past sixty-five years of age; and with progressive improvements in science and medicine it is reasonable to expect that in another decade that one out of every ten of the population will be over sixty-five. Furthermore, with the same improvement in science and preventive medicine they are far less decrepit than the old man of two or three generations ago. The senescent of today will be the senile of tomorrow, relatively speaking. By the same means of science and preventive medicine they must show improvements over their predecessors. These old men must be used.

Though on account of progressive changes due to the aging process, viz: slowing of cellular tissue repair with consequent drying out of same; lowering of the metabolic rate; cellular atrophy; lessened endurance of the skeletal muscles as a consequence thereof, they cannot be bearers of arms nor withstand the hardships of actual warfare; still with experience gained

through the years of living and the wisdom attained by so many of the aged, they can be one of the nation's great assets.

From the period of the council of the Sanhedrin to the present time, old age and wisdom have been almost synonymous. Where senescence fades into senility has never been determined by measurements in years. Indeed, the individual, except for his ancestors, determines it for himself.

The oldest histories of the oldest nations even to this good hour show that the counsel, advice and wisdom of the men from sixty-five to eighty-five has always been sought and respected and followed; witness the highest judicial tribunal in our country.

If civilization is to be saved, maintained and advanced it is well to consider the foundation upon which civilization is based, viz: education, church, business and government, all of which are fostered and preserved by the majority of those advanced ages. While the ravages of the physical and mental infirmities of the senescent and senile incident to the passing years may materially decrease the number that can add their bit to progress, still by application of proper living and hygiene such number of the useful can be materially increased. Of course, the Utopian hope of total restoration can never be attained. "In the place where the tree falleth there it shall lie." We will consider the pathologic changes that affect the senescent and senile under the following heads: circulatory; digestive tract; genito-urinary tract; osseous and muscular system; nervous system; respiratory and endocrines.

In the heart and blood vessels we find the highest incidence of catastrophes. The study of the heart under a good fluoroscope from puberty when the heart hangs almost perpendicular and the contractions of the auricle and ventricle and aorta are rhyth-

mical, showing the elasticity incident to youth; then year-by-year with the approach of young manhood and middle age when the heart assumes a more obtuse angle; and with the approaching of senescence and senility how the angle becomes still more obtuse. We can imagine the acuteness of the curves in the coronary vessels as the physiologic gradually fades into the pathologic. We can then understand why coronary spasm, coronary occlusion and coronary thrombosis can so easily take place. Also with the vascular changes plus hypertension, and in a large percentage of cases a cerebral storm or cerebral hemorrhage, we have the catastrophe of an otherwise useful individual becoming a liability.

As for the digestive tract, tooth decay is the betenoir of the aging and makes us wish for that section of our country in which Thewlis says teeth never decay.

Time will not permit the discussion in detail of the genito-urinary tract, the osseous and muscular systems, the nervous system, respiratory and endocrines. If interested, the writer refers one to Thewlis' book, entitled, "Care of the Aged."

However, the osseous and muscular systems must be mentioned on account of the crippling effects of their lesions, viz: arthritis; spondylosis deformans; senile osteoporosis; the fractures of old age; fibrositis; and bursitis. The writer would state that of the twenty-one bursae, 85 per cent of them can be reached with a needle and by needling same and injecting from 2 to 5 cc. of novocain, the pain can be relieved and if repeated, can sometimes be cured.

In senility, malignancy no longer holds a high place as a cause of death since it has reaped its harvest before old age has been reached.

What can we as physicians, do to add years of usefulness to these old people? First step is observation and prophylactic attention to the presenescent before pathologic changes incident to old age have taken place. If and when there has been a more definite understanding of cholesterol metabolism and we are able to control it we will then be able to prevent to a great extent

the circulatory changes that later become pathologic.

Encouragement in yearly physical examinations, preferably on a birthday, and keeping accurate records of same and furnishing the individual with a copy on which suggestions are written can be most helpful. In many instances focal infection can be cleaned out in old people. They stand tonsillectomies and transurethral resections remarkably well. Advice on the subject of vitamins will strike a responsive chord. A sympathetic heart-to-heart talk on the significance of a little dyspnea and tightness in chest on too much exercise will teach them to be intelligently cautious; temperate in all things.

Finally, build up their morale on what they, oldsters though they be, can do. Unfold before them a vision of the future of a better world in which to live, and in spite of what handicaps the passing years may have put upon them, they will somehow, somewhere find a niche in which they will fit in the fundamentals of civilization, whether it be education, church, business or government.

May such be the aim of the geriatrician!

REFERENCE

Malford W. Thewlis: Care of the Aged.

REPORT EFFECTIVE USE OF NEW SOLUTION FOR EPIDEMIC EYE DISEASE

Effective use of a solution of sodium sulfathiazole containing desoxyephedrine in the treatment of epidemic keratoconjunctivitis, the new eye disease, is reported in *The Journal of the American Medical Association* for July 10 by H. S. Gradle, M.D., Chicago, and G. H. Harrison, M.D., Waukegan, Ill.

"Epidemic keratoconjunctivitis," the two men say, "has taken an enormous toll of man-hours during the past year, for the average loss of working time incurred in each case is from fourteen to eighteen days. Consequently any measure that can reduce such wastage is worth trying, even though it may not be uniformly successful. On that basis we are reporting the use of a new therapeutic measure that in our hands has proved worth while. It is realized that the number of cases is small, that the results are only those of clinical observation and that the accurate serologic proof is missing."

The authors say that the new medication is harmless to the tissues of the eye, and reduces the time of the acute aspect of the disease to three to seven days. The solution is used as eye drops. In the 50 cases reported by them treatment was continued for several weeks after the acute phase had subsided.

ON THE USE OF THE BLOOD SEDIMENTATION TEST IN CLINICAL MEDICINE

C. PURCELL ROBERTS

Lieutenant, MC-V (S), USNR
Atlanta

The blood sedimentation test is frequently derided, and clinically snubbed, by those who have had only sporadic experience with the procedure, or who have heard it maligned by some dispenser of medical misinformation. Those, however, who have familiarized themselves with the mechanism of the test, and have watched with fascination its pronouncements in health and disease, have learned both its limitations and its decided value.

What is impressive during the state of health is the constancy of the individual's own normal rate of erythrocyte settling. This is to say, that not only will a healthy person's rate be within the normal range,—under 15 mm. in the first hour,—but it will consistently reaffirm itself at the exact level which is the person's normal. The test may be thought of as an index of plasma stability, and the rate of settling as another reflection of bodily homeostasis, identical in this respect with the temperature reading, the white and red counts, the finely-adjusted levels of chemical constituents of the blood.

In many diseases there is a variable disturbance of the plasma, with a resulting abnormality of the rate of erythrocyte sedimentation, the degree of divergence from the homeostatic rate depending on the type and severity of the sickness. It is true that in certain diseases there is no apparent quickening of sedimentation, and this inconsistency is proposed by the cavillers as a proof of the test's fickleness. What would be a more intelligent viewpoint is the presumption that this fact may help to differentiate types of immunologic reaction.

Mechanism

The penultimate reason for the erythrocyte sedimentation phenomenon is the clumping of cells in rouleaux, and the sink-

ing of these weighted particles. It is thought that a change in the plasma protein fraction, probably in fibrinogen, precedes this alteration of red cell dispersion. Such a relationship is not surprising if one remembers the office of the pseudoglobulins in immune reactions.

Technical Requirements: Sources of Error

By the use of the Westergren technic the test is much simplified. For dependable results, nevertheless, it is necessary to observe a few niceties.

Exact proportions should be used in mixing blood with anti-coagulant, 0.4 cc. of a 3.8 per cent solution of sodium citrate being placed in a 2.0 cc. syringe. A sharp 22-gauge needle is securely attached and the venipuncture made, the plunger being drawn carefully to the 2.0 cc. mark. The contents are gently expressed into a clean test-tube, and homogeneity assured by moderate rotary agitation. Promptly, the citrated blood is sucked up into the long tube,—which allows a blood column of 200 mm. and thus reduces the impediment to free fall caused by packing,—and care should be taken to adjust the meniscus at the 0 mark, or to calculate any error in readings if this has not been accomplished. The tube must be essentially vertical in its rack, since inclination causes a curious acceleration of sedimentation, and adds a sizeable error. Serial tests should be carried out in identical environmental conditions, since the rate of fall is directly proportional to temperature. Vibration of the apparatus has no appreciable effect on settling, nor has intensity or quality of light. Lowered barometric pressure, even as in the stratosphere, causes no noteworthy change in rate. There is some slight variation from the true rate if the citrated blood is allowed to stand at room temperature for a time before being set up, and the phenomenon of settling is lost entirely after an overnight delay.

The quickening of blood sedimentation after the fourth month of pregnancy is an interesting appearance of this abnormality. The physiologic dilution of erythrocytes is not enough to account for the degree of increase in rate,—40 mm. at term,—and here again altered plasma constituents must be assumed.

Menstruation is usually given as a cause of increased rate of blood sedimentation, but it appears that any considerable plasma disturbance occurs only in certain individuals, and that, by-and-large, this periodic event results in only a minor discomposure of the homeostatic rate, if in any at all.

The Lag in Plasma Disturbance

A very important fact to be understood is that there is a lag in the production of plasma disturbance, and therefore in the appearance of elevation of the sedimentation rate. If the fever reaches its height on the first or second day of the disease, the highest rate of erythrocyte sedimentation may not be found until the third or fourth day, and at entrance may be "normal." This is the reason for the too-frequent statement that "the blood sedimentation rate was normal in this case," when, as a matter of fact, no further check of the initial test has been made. Such a claim is justified only if there have been several determinations, during the "post-onset," in order to establish the actual trend.

Thus it is obligatory to have serial determinations. These data will demonstrate either the remarkably determined procession of rate-change with time, or the permanence of level which is telling evidence of homeostasis.

Range of Rate: Diagnostic Leads

Although it is customary in some clinics to regard all rates under 20 mm. as within normal range, the most frequent finding for women is between 5 and 7 mm., and for men slightly lower. It is only an occasional person whose homeostatic rate is in the upper range of the so-called normal, and any such level should be repeated sufficiently before this can be asserted.

When there is practically no settling, or less than 1.0 mm. in the first hour,—(when suspension stability of the red cells is high and sustained),—one may suspect erythremia (polycythemia). Also, slow fall is seen in allergic disorders, in many neurasthenics, and in congestive failure.

A peculiar partial settling occurs in certain hemolytic anemias, when there is a degree of spherocytosis of the red cells. Since the plump spheroid cells cannot form rou-

leaux, they remain suspended in the supernatant plasma and can be seen as a ground-glass-like haze above the packed, settled cells.

The usual rule in uncomplicated virus diseases, such as the common cold, is that the blood sedimentation rate is not much, if any, elevated. For instance, glandular fever, or acute infectious mononucleosis, shows only a slight elevation of the rate, provided there is no associated streptococcal pharyngitis.

In subacute bacterial endocarditis, if there are no infarcts of any considerable size, and if the determination is not being made at the time of terminal cachexia, the blood sedimentation rate is within normal range, or barely elevated.

Slight elevations (15-25 mm.) occur in diseases of the order of morbidity of subacute bronchitis. *Moderate* elevations (25-50 mm.) appear in chronic rheumatoid arthritis, in pneumococcal pneumonia, in the tractable cases of pulmonary tuberculosis, and in pyogenic surgical conditions such as cholecystitis and appendicitis. *Marked* elevations (50-75 mm.) are seen in severe infections or in rapidly growing, extensive neoplasms. Rates in the *extreme* range (around 100 mm.) are immediately suggestive of leukemia, hypernephroma, late tuberculous or metastatic cachexia, multiple myeloma, disseminated rheumatoid entities.

Specific Instances of Differential Aid

When there is a need for distinguishing functional disease from morbid process, the sedimentation test is of frequent use. The most obvious example is, of course, the decision between neurosis and organic disease. By no means should the solution of this great and ever-present clinical problem rest very heavily on a single test, such as the one under discussion. Yet, an established personal normal, persisting under continued observation, is justifiably reassuring.

Coronary arteritis with myocardial infarction gives a distinct plasma disturbance, while angina pectoris,—functional disorder that it is,—does not cause any elevation. The rate is still homeostatic shortly before infarction, since it is apparently necessary

to have rather extensive, inflammatory cardiac arteriosclerosis before any hint of impending accident might be obtained by sedimentation studies.

Pelvic inflammatory disease consistently shows elevation of the rate, and this fact is helpful in differentiating acute appendicitis. In the latter case the rate is not disturbed at the time of consultation, but only after the "lag period" has passed.

Subacute bacterial endocarditis (*v.s.*) differs from activated rheumatic state in the notable lack of accelerated sedimentation. Likewise, arthralgia can be separated from rheumatic arthritis, for increased settling is a regular concomitant of rheumatic activity.

Desirability of General Use

If a practice is made of obtaining, in health, the individual's normal level and, in disease, the serial curve of divergence from the homeostatic point, very helpful information can be had. This is true in the office, in the hospital or the clinic.

Usually physicians are aware of the common use of this test in tuberculosis and rheumatism, of its value in confirming resolution of the disease process and re-establishment of bodily integrity. But there is a lack of cognizance of its general usefulness.

Its application in cancerous disease is not sufficiently apprehended. Here it may be valuable in demonstrating a renewal of neoplastic activity or the persistence of metastatic lesions after primary treatment. Some tumors show rhythmical growth behavior, and the sedimentation rate faithfully records this. While a normal level cannot be held as certain evidence of neoplastic inactivity, still the finding of suspension stability of the erythrocytes is strongly in favor of health.

Additional Information

Gross examination of the supernatant plasma is useful as a means of detecting abnormal bilirubinemia or lipemia. An indication of leukocytosis may be found in an increase of the so-called buffy layer, usually about 1 mm. in thickness and formed by packing of the slowly settling white cells at the top of the red cell column. The presence of spherocytes may be shown, as de-

scribed above. A rough estimation of the hematocrit is possible, if the blood sediments rapidly enough to cause complete packing, but in calculations it must be remembered that the blood has been diluted 4:1.

Theoretical Extensions

As suggested earlier, the variable behavior of erythrocyte sedimentation in different diseases may, in coordination with related data, give some light on the nature of immunity in these diseases. Furthermore, the individual's normal level, and the "resilience" of the plasma disturbance as mirrored by sedimentation curves, may be significant as a mark of constitutional character, and thereby of disease predilection.

Conclusion

This paper is written with the hope of encouraging consideration of the blood sedimentation test for its innate interest, its clinical pronouncements, and its implications of the nature of immunity in various disease states.

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THE ASSOCIATION'S BUSINESS

On other pages of this JOURNAL is a synopsis of the proceedings of the House of Delegates for the Ninety-Fourth Annual Session of the Association.

The Association has today the largest number of members in its history — slightly over 2,000. Each county medical society in Georgia is privileged to send to the House of Delegates one delegate for each of its fifty members, or fraction thereof; therefore, the proceedings of the House of Delegates reflect the thoughts of the Association's membership for the year 1943.

Members of the Association will do much to facilitate the routine work of the Association — meaning the House of Delegates and the Council — if they will communicate their views to their duly elected delegates. Needless to say, such communications should be in writing and duly adopted by their respective component societies.

THE INCREASING INDIVIDUAL OPPORTUNITY AND RESPONSIBILITY OF DOCTORS AND HOSPITALS FOR SERVICE IN RELATION TO THE ACCELERATED WAR PROGRAM

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Atlanta

At no other time in the history of our Nation has the opportunity and responsibility of doctors and hospitals been greater than at the present time. The energies of our physicians and the facilities of our hospitals are heavily taxed and will become more so as the war progresses. This emergency, however, is not without its advantages to both physicians and hospitals. Valuable knowledge and experience is being gained—knowledge and experience that will mean much in the peace that follows war.

The medical profession has been quick to respond to the needs of our country at war. Fifteen of our states have already contributed more physicians to the armed forces than the sum of their 1942 and 1943 quotas and will not be called on to furnish any more physicians during 1943, except interns and residents and those to fill specific vacancies. So fast have been the enlistments in general that many civilian communities are seriously in need of medical assistance. It is the responsibility of the doctors remaining at home to go to communities where they are most needed.

Procurement and Assignment Service has endeavored to carry out its function of furnishing physicians for the armed forces and carefully considering the needs of the civilian population. While certain sections have been deprived of proper medical care before the seriousness of the situation was fully realized, on the whole we feel that the service has overcome many handicaps, has done and will continue to do a splendid job.

One of the principal concerns of those of us here today is the conservation of manpower (and womanpower) engaged in the

practice of medicine, to the best interest of all. We have a great individual opportunity and responsibility to see that the greatest service possible is rendered in the most efficient way. Physicians, when they are called upon, should go where the need is greatest. Many physicians who are overage or disabled will be called upon to contribute to our concentrated efforts.

Each physician will be taxed to care for those who must depend upon him for professional advice. There is afforded to him an opportunity not only to practice medicine but to give instructions in instances where it will serve to alleviate the demands made on doctors. Only by carrying a heavier load individually can we cope with the situation before us and supply the men needed for our armed forces.

First of all, it is our duty, even an opportunity and responsibility, to see that our fighting men are well cared for; however, the civilian population must not be allowed to suffer for the want of medical care.

By education and instruction, the doctor can aid patients and others to care for the minor ailments without the presence of a doctor. Encouraging patients to help themselves in simple emergencies will lessen the burden on the profession. Telephone calls instead of visits are saving time and energy for many doctors.

Wherever possible, preventive medicine should be taught and encouraged. The individual doctor feels now more keenly the importance of maintaining health by application of preventive medicine.

For the duration of the war, and for some months afterwards, there will be an increasing shortage of doctors in the average home community. In order to meet the growing demands and requirements of our armed forces, practically every able-bodied male doctor under the age of 45, except a very few considered absolutely essential for staffing hospitals and medical colleges, will be inducted into the service. Civilian needs will have to be met by physicians over that age or physically disabled, and by women practitioners.

Particularly in small communities, therefore, the doctors who are left will be ex-

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Prepared for Sectional Meeting of the American College of Surgeons, War Sessions, Charlotte, N. C., March 22, 1943.

ceptionally busy. Having to see more patients in a given amount of time, they will have to devote a shorter period to each patient. Indeed, it is probable that in some communities, in order to enable the doctor to care for the serious cases, people will have to spare him from being consulted on trivial matters, and certainly the luxury of having a doctor make frequent calls during an uneventful convalescence will have to be dispensed with. A short telephone conversation will sometimes have to take the place of either a house call or an office visit.

It is to be expected that cultists will try to slip in to fill the void, but wise individuals will know that their own intelligent common sense is almost always more helpful than an appeal to such would-be healers.

The medical profession as a whole can help in the emergency by encouraging groups and clubs to prepare themselves to meet medical situations intelligently, both by study and by having suitable books or pamphlets available. Individuals should be encouraged to take courses in home nursing and in first aid.

In the short period since our mobilization began, a volume of work has been added to the private physician, as well as to clinics, in curing and rendering non-infectious a large number of victims of venereal diseases. Through this effort many men have been made physically fit for military service, who otherwise might never have received medical treatment.

Of course, the problem of venereal diseases has not been completely solved, but some advanced steps have been made in regard to a solution to this problem, and an opportunity to fight these diseases more openly has been afforded by the accelerated war program. This has been a great forward movement toward the eventual eradication of venereal diseases. After all, education is the most important phase in attaining this goal and the responsibility therefore falls primarily upon the doctors and hospitals. Not only is this a responsibility, but it is also an opportunity.

The Selective Service System, in its work of furnishing manpower for our armed forces, has had to call upon the physicians remaining in private practice to devote

more and more of their time to making examinations for the local boards. The boards have lost numbers of their examining physicians to the armed forces and this has doubled the work on the physicians at home. Some physicians are called upon to make examinations for two or more counties.

Using the state of Georgia as an illustration, Selective Service had a situation in a rural county in the northern part of the State where the local board was without the services of an examining physician and arrangements were made for an intern from one of the city hospitals to make regular visits to the local board for the purpose of examining its registrants. Hospital interns are constantly called upon by the local boards to assist with these examinations and their wholehearted cooperation is most gratifying. While this is additional work and responsibility for the young intern, nevertheless it affords him an unprecedented opportunity to actively serve his country during his period of hospital training.

The valuable professional services of examining physicians have proved of the utmost importance in helping the Nation meet its wartime needs. Here again is responsibility also an opportunity, as evidenced by the following excerpt from a letter of a Selective Service examining physician:

"Many of the examining physicians who are members of my Board of Examining Physicians . . . and who have in their practice of modern, streamlined medicine, allowed the 'inspection' phase of physical examination to be supplanted by the x-ray and other laboratory diagnostic measures, are beginning to develop their skill of diagnosing defects . . . by an ever improving inspection ability. My examining physicians, participating in this present screening type of examination, have become enthusiastic in playing the game of 'spotting' pathology. Examining physicians who are really interested in this type of examination owe a debt for the privilege of participating in this refresher course which is making them more alert and is developing their senses of sight, hearing, and touch in the detection of physical defects."

As to physicians in civilian practice, there are certain congested areas where there is a serious shortage of physicians. It is practically impossible for the doctors there to render the necessary medical service. In one such place, the last obstetrician entered

the service and the care of obstetric cases was left to the hospital attendants, while arrangements were being made through Procurement and Assignment Service for a physician to be transferred to that area. In situations of this kind our responsibility is great. We must see that medical service is so distributed that no one community will suffer as long as help can be rendered. Procurement and Assignment Service is making a conscientious effort to foresee and prevent such critical situations, but when one occurs a remedy is brought about with the least possible delay.

In these critical war days our hospitals occupy a position of importance as never before. It is interesting to note here that as late as 75 years ago the entire country had less than 150 hospitals, of which one-third were institutions for the insane. Today, according to the latest survey by the American Medical Association, there are about 6,350 registered hospitals of various types in the United States. The service they render can be realized from the fact that in the course of a normal year one in every eleven persons in our entire population receives care in a hospital ward or private room. In 1941, the total number of in-patients was 11,596,000 and there were about an equal number of ambulatory patients in the out-patient departments. In addition, more than 1,400,000 babies were born in hospitals in that year.

Because of the untiring efforts of the American College of Surgeons, the improvements in hospital standards have been constant and sound. Because of this work by the college, the United States now has the finest and best equipped hospitals in the world, with a quality of medical and surgical service that is unsurpassed.

But the modern hospital has become much more than a place for the care of the sick. It has become the strategic center for the study of disease in all its manifestations, for the development of new methods of diagnosis and treatment, for undergraduate and postgraduate medical and nursing education, and for modern social service. The demands of war have increased the opportunity and responsibility of our hospitals.

In a situation more or less normal, our hospitals have been continuously filled even before the war started. Some believe this has been largely due to hospitalization insurance, but, regardless of the cause, now is the time to forewarn and to forearm because in the event of a major epidemic, such as happened during the first World War, the hospitals could not possibly take care of the situation, if they continue to hospitalize people with minor complaints who could be treated in the home. Elective surgery, of course, should be curtailed if an epidemic strikes.

By teaching and encouraging preventive medicine, and by cooperation between citizens, physicians and hospitals, we may help to eliminate some of the increased work that necessarily falls upon hospitals in time of war because of the epidemic forms of disease which accompany wars and the mass concentration of soldiers and workers, and with the increased numbers of accidents caused by the more hazardous work in defense plants, factories, et cetera.

Hospitals are being called upon for services which they have not heretofore rendered. They have had the opportunity and responsibility of according scores of women through the assistance of the Red Cross the basic fundamentals of nursing through the Nurses' Aide Corps. The service rendered by this group has been indispensable. Wives, mothers, business women, young girls, all are helping to solve a wartime problem by enabling one graduate nurse to do the work of six. Even before Pearl Harbor the armed forces had drawn heavily on the thinned ranks of graduate nurses to staff bases here and abroad. War industries with their increased accident and health hazards have been bobbing up in areas where hospital facilities were inadequate in peacetime. All this has added to the burden and responsibility of hospitals, while at the same time giving them an opportunity to be of greater service to the Nation. The burden upon physicians and hospitals may be lightened to some extent by the Nurses' Aides rendering assistance in the stricken home.

The hospitals will be given more responsibility in training the additional num-

bers of registered nurses needed in our present crisis; 65,000 young women must enter schools of nursing between June 30, 1943, and July 1, 1944, if even minimum civilian and military needs of the Nation are to be met, Paul V. McNutt, Federal Security Administrator, announced on January 14. This quota, which exceeds the previous year's quota by 10,000, was reached at a meeting in Washington of the subcommittees on nursing and hospitals of the health and medical committee, Office of Defense Health and Welfare Services. Where state laws permit, schools of nursing are urged to accelerate their courses to reduce the usual training period from three years to thirty months, and in some instances even a little shorter time. The opinion has been expressed by many that this period of training could safely be reduced to 24 months, and here again is an opportunity for service afforded the hospitals.

Due to the withdrawal of doctors and nurses from civilian practice and to the shortage of personnel and materials, our hospitals are working under most difficult conditions. Urgent new needs have also arisen through the function which the hospitals are serving in connection with the war effort. Many special problems in war medicine are receiving study in our hospital laboratories. The provision for air-raid precautions and other war measures, together with the scarcity of hospital supplies of all kinds, have contributed to the rising difficulties and cost of administration.

Another singular result of the war is that the very materially increased birth rate has overcrowded the maternity wards. This increase in births is quite clearly related to the war. Even before our entry into it the prospect of military service was for some an occasion for hastening a contemplated marriage. Statistics show that the percentage of births for 1942 is far above that of the period 1938-1939. The birth rate for the month of December, 1942, in some localities, was more than 80 per cent above the same month for the period 1938-1939. One is naturally curious to know whether the abrupt upward trend in births in the last few months of 1942 will continue into the early months of 1943, or whether a

turning point will soon be reached. The recent very high level of the birth rate can obviously not continue very long under present war conditions.

With the facts before us, it is clear that we must adjust our wartime demands upon hospitals to the end that they may continue to contribute effectively to the Nation's health. It will be necessary to weigh carefully whether, in the existing emergency, the patient can, in the interest of all concerned, be better taken care of in the hospital, or whether he may be treated adequately at home. While this may involve certain inconveniences to the public, they will be cheerfully borne so that patients most in need of hospital services can get them.

I think it in keeping with our subject to refer here to the accelerated war program in our medical schools. The pre-medical course has been cut to two years and the regular four-year medical course has been reduced to a point where it can be completed in three years of continuous work. The faculties of most medical schools have been cut to a minimum, showing their willingness to cooperate by giving their men an opportunity to go into service with the armed forces.

Volumes could be spoken of the increasing individual opportunity and responsibility of doctors and hospitals for service in relation to the accelerated war program, but I have attempted here to point out some of the highlights of opportunity and responsibility. We will continue to hear reports of meritorious service and eventful discoveries. It will be a long time before the full story can be told and before we will know the total result of our service and achievement. We may well be proud of the spirit exemplified by the medical profession in this time of crisis and its willingness to do everything possible to make the strain easier. It is our sincere hope that out of the chaos and havoc of war the knowledge and experience gained will in some measure compensate for the losses and sacrifices sustained. Let no one say that we left undone one thing that could have been done.

HOUSE OF DELEGATES
MEDICAL ASSOCIATION OF GEORGIA

Synopsis of Proceedings

May 11, 12, 13, 14, 1943

Atlanta

PRESIDENT'S REPORT: Dr. James A. Redfearn, Albany, thanked the district societies for holding their semi-annual meetings and explained the value of such meetings during the war and helpfulness to the doctors who could not spend more time at state and specialty meetings.

He insisted that a high standard of medical education be maintained but admitted that caution must be adhered to but the fact must not be overlooked that while we have physicians and surgeons who do highly technical work, we must have others to take care of the common practice. This statement was illustrated by saying that a race-horse could not take the place of a mule.

The recommendation was adopted that the number of days for the regular annual sessions be continued for the upbuilding of the members and visitors who attend our meetings and that the Association's meetings could not be replaced in value by other specialty organizations.

The president complimented the officers, committeemen and members for their useful work and loyalty and paid his high respects to the Secretary-Treasurer for his efficient work and management.

PRESIDENT-ELECT: Dr. W. A. Selman, Atlanta, president-elect and chairman of the Procurement and Assignment Service for Physicians, reported that one-third of the physicians in Georgia who were examined for military service were found to be physically unfit. That their physical condition was found to be about equal to that of the general average of lay people. Some of the physical defects found were "perforated drums, defective eyesight, scars on the lungs, irregular hearts, peptic ulcers, hernias and varicose veins."

Health education has been promoted by visual health teaching in groups of all ages, with radio programs and other means of conveying health education. More diseases are being understood and properly treated which result in cures. Medicines are being and have been discovered which relieve serious human infections. Millions of men in the armed forces are being trained and toughened for service; many of them have led sedentary lives but are not likely to fall back into the habit again. They will likely teach their children to be ruddy and strong. Some will take longer vacations, spend more time hunting, fishing, swimming, and on the golf courses.

SECRETARY-TREASURER: Dr. Edgar D. Shanks, Atlanta, secretary-treasurer, reported that more than 500 members of the Association were in military service. High tribute was paid to them because they are real physicians and real patriots. The Association has maintained contact with as many of the physicians in military service as has been possible. Letters have been received from members in Africa, Australia and other countries of the world. The JOURNAL is being mailed to all members in service with whom we have been able to maintain contact.

The Public Relations Bureau has made progress although facilities for travel have been extensively

curtailed. Health films have been shown to 248,000 people in almost every section of the State. Health literature has been distributed to large numbers of people. *Medical News* has published on an average of 130 articles a year and is mailed to all newspapers in the State each month. The Health Division of the Georgia Department of Public Health and the Woman's Auxiliary have rendered excellent service in promoting our health program and are due our thanks.

One year ago the Association had in banks and United States Government bonds at current value the sum of \$36,688.59, at the close of the fiscal year we had on hand \$40,773.31, an increase of \$4,084.72. This has been accomplished without the payment of dues by a great majority of the members in the armed forces. An itemized statement will be published in THE JOURNAL.

PARLIAMENTARIAN: Dr. John W. Simmons, Brunswick, parliamentarian, reported that there had not been a single case of unethical conduct reported to him during the year, neither had there been an inquiry in reference to the Constitution and By-Laws.

The Parliamentarian recommended that the Association appoint a committee with the help of the Association's attorney to formulate some plan for a subsidiary corporation whereby the members of the Medical Association of Georgia might pay into the corporation a stipulated sum annually which would be used later when needed to protect them from "fear and want." It would be the duty of the committee and the Association's attorney to report to the House of Delegates at its next annual session.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION: The report of Dr. Olin H. Weaver, Macon, for the delegates to the American Medical Association, was complete with many details. Reference Committee No. 1 recommended that it be endorsed and that the delegates be thanked for their excellent representation. The report showed that all our delegates attended every meeting of the House of Delegates at the 1942 session of the American Medical Association, in Atlantic City.

Dr. Ludvig Hektoen was declared the winner of the Distinguished Service Award.

There were 120,701 official members of the American Medical Association on April 1, 1942, a gain of more than 2,000; there were 73,747 fellows, a gain of 1,243, during the fiscal year.

The President and Speaker of the House of Delegates spoke on war subjects and the American way of life as compared to conditions in countries ruled by dictators, known as "totalitarian" governments. Our forefathers were the builders, instigators and promoters of a government for free people. "We hold these truths to be self evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness."

Any effort or change in the plans of the A. M. A. to supply ample medical care was condemned. The foresight of the A. M. A. was shown by the plans prepared and the efforts of the Association to prepare for adequate medical care in war during 1940 when it seemed that the possibility of war was remote.

The House of Delegates paid tribute to the former officers and members of the House who passed away since

the 1941 session.

In addition to the usual duties of the president, Dr. Frank Lahey has been engaged in many duties to aid the government in its prosecution of the war by helping to provide for ample medical care for the armed forces. President-elect, Dr. Fred Rankin, spoke of the young men's war and stressed the importance of the older physicians' work at home. All efforts should be made to maintain high standards of medical education and internship, and that well trained physicians should be supplied at all times.

The Surgeon General of the United States Army and Hon. Paul V. McNutt, War Manpower Commissioner, paid their respects to the physicians who had contributed so much under the Procurement and Assignment Service.

The loyalty of Georgia physicians was shown by having supplied more than its quota of doctors for military service.

The reports of the Board of Trustees, councils and standing committees showed that an immense amount of unselfish work had been done and vast good accomplished.

Total receipts for 1941 were \$1,939,127.39, an increase over the previous year of \$62,773.59; total expenditures were \$1,715,779.75; total invested and uninvested funds December 31, 1941, amounted to \$2,708,661.13. There were 644 employees.

Efforts have been made to protect the public against unscrupulous advertisers. The Association distributed large quantities of health literature and sponsored 2,200 radio health talks.

No dues are collected for membership in the A. M. A.; the only requirements for membership are good standing in local county medical society and state association. Fellowship dues are collected which pays for subscription of *The Journal of the American Medical Association*.

Hospital insurance was approved and should be voluntary with each member. It should be handled locally so as to meet the needs of each community. Any effort for compulsory indemnity insurance was condemned. The resolution to appoint women doctors for military service was not approved. There were 8,000 members in attendance at the session and South American countries were well represented. A resolution was adopted to approve the activities of the National Physicians' Committee, and commend the Board of Trustees for the extension of medical service.

SCIENTIFIC WORK: One member of the committee is sick, one serving in the armed forces, another has been stampeded with work. The President appointed the president-elect, Dr. C. W. Roberts, and the secretary-treasurer to prepare a program, a copy of which is submitted herewith. It was adopted as the official program for the Ninety-Fourth Annual Session.

NECROLOGY: The chairman, Dr. Wm. R. Dancy, Savannah, reported the Memorial Exercises had been planned for noon, Thursday, May 13. The Reference Committee thanked the committee for the beautiful language and thoughts expressed in the exercises.

HISTORY: Adopted the report of the chairman, Dr. Frank K. Boland, Atlanta. There is so much extra work for the committeemen to take care of since so

many of our members have been transferred to military service, no member of the committee has any appreciable time to devote to the work. New material continues to accumulate and it is hoped that the history can be completed and published after the war.

CALHOUN LECTURESHIP: The chairman, Dr. James E. Paullin, Atlanta, reported that Admiral Luther Sheldon, Washington, D. C., Bureau of Medicine and Surgery, U. S. Navy Department, had been obtained to deliver the Calhoun Lecture. Cash on hand and cost of investments were \$2,920.83.

APPENDICITIS: The report of the chairman, Dr. T. C. Davison, Atlanta, was adopted. On account of so many doctors being in military service, it was not expected that as much would be done as the committee had hoped to accomplish. Many talks have been made to high school students, Parent-Teacher Associations, and Women's Clubs. The Woman's Auxiliary has been a great help in many districts. Some idea of what has been done in the past five years is shown by statistics, as follows: In 1937 the death rate from appendicitis per 100,000 population was 10.4; in 1942 it was only 5.6.

HOSPITALS: The report by the acting chairman, Dr. Russell H. Oppenheimer, Emory University, was adopted. No business has been officially submitted to the committee. As a member of the American Hospital Association and Georgia Hospital Association, the chairman has been in close touch with the activities of both organizations and they are aware of the problems faced by those who are responsible for medical care at present and in the future. Their ideas are consonant with those of the medical profession, and their members are eager to have the advice and cooperation of the physicians. Many of the problems of medical care should be delegated to the hospital associations.

MEDICAL DEFENSE: Report of the chairman, Dr. Marion C. Pruitt, Atlanta, was adopted. Nine suits were handled by our attorney; 5 are pending, 3 cases were dismissed, and 1 postponed on account of the defendant being in military service. This is a favorable report. When a member is threatened with a suit for alleged malpractice, he should immediately write all facts and mail to the Secretary-Treasurer. He should not discuss the suit or threatened suit with anyone until he gets the advice of our attorney. Many times suits are not filed if handled in this way. Do not employ an attorney for account of the Association. Careless talk should be avoided and no member should condemn another before a patient because he is not likely to hear the facts other than one side of the story.

PUBLIC POLICY AND LEGISLATION: The report of the chairman, Dr. Spencer A. Kirkland, Atlanta, was adopted. The committee was active during the 1943 session of the General Assembly of Georgia. There were many new members in the Legislature. Titles of bills enacted into law follow:

1. A bill to permit the State Board of Health to acquire property;
2. A bill to permit the State Board of Health to destroy certain records;
3. A bill making it compulsory for every physician or other person who attends childbirth to test or

have tested the blood of the mother for syphilis;

4. A bill making it illegal for a landlord to rent a house for vice purposes, or for anyone to operate a house, tourist camp, trailer or any kind of place which might contribute to prostitution;
5. A bill to amend the Ellis Health Act regarding procedure to be followed in planning public health units;
6. A bill to regulate the sanitation of shellfish beds;
7. A bill to clarify the procedure to follow in certifying delayed birth certificates.

The Naturopath Bill (chiropractic) and a number of others were defeated.

Medical Schools: Agreeable to instructions of the Association, adopted at the Augusta session last year, our committee has cooperated with our delegates to the American Medical Association and with the Council on Medical Education and Hospitals of that association to have the University of Georgia School of Medicine restored to the list of accredited medical schools of the Council on Medical Education and Hospitals of the American Medical Association. In February of this year the Council informed us that this had been accomplished.

Medical education in Georgia today deserves additional comment by us. As all of you know, medical education in this State has progressed since the founding of the University of Georgia School of Medicine in 1828. All told, about twenty medical schools have functioned in Georgia since 1828, or during the past 115 years. At this time there are three: the University of Georgia School of Medicine, Emory University School of Medicine, and Oglethorpe University School of Medicine.

During the past year there has been much talk about the accreditation of medical schools and other educational institutions. It should be recalled that after all is said and done the real test for any individual or for any institution is whether or not the individual or the institution stands on honor and integrity and possesses a real desire to serve the public. For example, the University of Georgia School of Medicine functioned for 85 years before the Council on Medical Education and Hospitals of the American Medical Association was reorganized in 1913, and during that time it graduated numerous physicians whose services to the public cannot be questioned now. What is known as Emory University School of Medicine functioned for 59 years without the benefit of accreditation by the Council on Medical Education and Hospitals of our national organization, and it, too, graduated numerous reputable physicians. Oglethorpe University School of Medicine is a new school and is functioning without the benefit of accreditation by any national agency. It is too early to predict what Oglethorpe will do, but it is certain its future will be determined by the honor and integrity of its faculty and student body.

In all of these medical schools there are full-time professional teachers and administrators, and it is evident that some of them fail to appreciate the needs of the very people whom the medical profession serves. It is also evident that in some instances a gross injustice has been done the students because of the lack of planning by the administrators and teaching staffs, because of the lack of harmony in the administrative and teach-

ing groups, and because all of this results in misunderstanding and inadequate teaching. For example, at Emory University School of Medicine during recent years more than 24 per cent of the freshmen failed, and another 11 per cent were "conditioned" and required to do extra work before they were promoted to the sophomore classes of that school. One year 42 per cent of the freshmen failed to qualify for admission to the sophomore medical class. The national average for failures of freshmen medical students is approximately 6.5 per cent. Another 2.4 per cent drop out because of illnesses, finances, or reasons other than poor scholarship. Emory's failures for freshmen medical students exceed by approximately 200 per cent the national average for failures of freshmen medical students. These and other facts regarding Emory's medical school have been published in THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA.

Almost one-half of the physicians of Georgia are graduates of Emory's medical school. Every member of our committee is a graduate of Emory's medical school. Naturally, none of us desires to harm Emory; on the other hand, all of us desire to help Emory. At the same time all of us must agree that Emory's present policies and practices are not healthy and do not represent the American way of doing things. It is our opinion that Emory's administrators and medical faculty should re-appraise its medical school and take immediate steps to correct existing conditions. The Council on Medical Education and Hospitals of the American Medical Association has not inspected Emory's medical school since April 6, 1935.

The report of the Committee on Public Policy and Legislation was studied by another committee from the House of Delegates of the Association, appointed by the President. That committee's report to the House of Delegates of the Association follows, and the report was approved by both the House of Delegates and the Association in general session May 14, 1943:

The report of the Committee on Public Policy and Legislation is comprehensive, and the committee should be commended for its good work in the interests of the medical profession and the public.

The committee's comment regarding medical education in Georgia today, and particularly the reference to the high percentage of failures in the freshmen classes at Emory University School of Medicine, should be of concern to every citizen of our State. It is almost unbelievable that a Georgia educational institution would fail 200 per cent more freshmen medical students than the national average for failures of freshmen medical students. We understand that the failures of freshmen medical students at the University of Georgia School of Medicine are within the average figures reported by the medical schools of the United States and Canada.

The medical profession of today does not desire to lower the standards for medical education, but it is evident to us, from the information in hand, that Emory's standards can be strengthened. In other words, Emory's high percentage of failures of freshmen medical students can be charged to one or all of the following:

1. Improper selection of students;
2. Inadequate teaching;
3. Too strict grading for the teaching given;

4. Laxity in administration.

We do not believe that Georgia boys and girls who qualify for admission to medical schools possess lower intelligence than the boys and girls of other sections of the country, therefore it would appear to us that Emory's high percentage of failures for freshmen medical students must be charged to inadequate teaching, to too strict grading for the teaching given, and to laxity in administration.

We believe the Committee on Public Policy and Legislation should continue its efforts to improve medical education in our State, because Georgia is in need of more physicians. To this end, we recommend that that part of the committee's report dealing with medical education be transmitted to the officials responsible for the operation of the three medical schools in Georgia now, and to the Council on Medical Education and Hospitals of the American Medical Association, with the request that each of these schools reappraise all of its facilities, including teaching personnel, methods of teaching and methods of administration. Such communications should, of course, offer the help of the Medical Association of Georgia in solving this problem, if such help is desired.

WOMAN'S AUXILIARY: Report of the President, Mrs. J. Lon King, Macon, was adopted. The members were congratulated for their excellent work and results obtained.

ORTHOPEDICS: The report of Dr. Fred G. Hodgson, Atlanta, chairman, was adopted. The medical director of the Crippled Children's Division of the State Welfare Department resigned for lack of help and cooperation by lay members. An effort was made to pass a bill to place the Crippled Children's Division of the State Welfare Department under the supervision of the State Board of Health. The bill failed to pass but will be introduced again at the next session of the Legislature.

POST-GRADUATE MEDICAL EDUCATION: The report of Dr. G. Lombard Kelly, Augusta, chairman, was adopted. It was recommended that it was not feasible to sponsor post-graduate education during the exigencies of war. The University of Georgia School of Medicine will give its usual annual refresher courses for Negro physicians during the last week of June (1943).

NATIONAL YOUTH ADMINISTRATION: The report of Dr. Clarence L. Ayers, Toccoa, chairman, was adopted. Activities have been curtailed for lack of funds. Much good is being done along health lines at the various NYA projects. All students are given thorough examinations, and protective vaccines. They are advised in reference to any defects.

PEDIATRICS: The report of Dr. W. W. Anderson, Atlanta, chairman, was adopted. The committee has held only one meeting although a great deal of work has been accomplished by correspondence. The State Department of Public Health has distributed literature at Maternal and Child Health Centers. Educational campaigns have been promoted to decrease the high death rates of premature infants. Many bulletins and pamphlets have been submitted to the committee by the Georgia Department of Public Health before being

printed. There was one notable 30 page pamphlet compiled and edited by Dr. Edwin R. Watson, on "Food Selection and Preparation." Funds are available from the Georgia Department of Public Health for personnel to visit and inspect Maternal and Child Health Centers, also for members to attend the Southern Pediatric Seminar for two weeks each summer in Saluda, N. C. It is recommended that the committee continue to function and that the committee personnel be members of the Medical Association of Georgia, State Academy of Pediatrics and Georgia Pediatric Society.

MEDICAL ECONOMICS: The report of the chairman, Dr. B. T. Beasley, Atlanta, was adopted. Recommended that the government do not enlist physicians for military service from rural sections because the demands there are so great for practitioners; that physicians in cities should be used for military service because the proportionate number of practitioners are so much greater according to population. Health conditions over the country have improved, seemingly on account of the Farm Security Administration, or possibly from other causes or aids. Reports have reached the committee that in some sections the doctors do not cooperate with the medical care program because they are not satisfied with it or its management. Since the Federal Government proposes to educate 5,000 physicians annually, it may be interesting to look into the future.

INDUSTRIAL HEALTH: The report of Dr. John W. Simmons, Brunswick, chairman, was adopted. One meeting was held. The recommendations of the Council on Industrial Health of the American Medical Association were adopted.

Dr. W. W. Battey, Augusta, was appointed to study plans for post-graduate medical education in industrial health problems. Institutes were held in Augusta, Savannah, Atlanta and Columbus. The meetings were under the auspices of the Medical Association of Georgia, Georgia Department of Public Health, and the Associated Industries of Georgia, and were sponsored locally by the county medical societies, health departments, and chambers of commerce. They were designed to bring together physicians, industrial leaders, and labor leaders. Qualified speakers spoke at all institutes. County medical societies which participated were:

- Fulton County Medical Society.
- Georgia Medical Society (Chatham County).
- Richmond County Medical Society.
- Muscogee County Medical Society.
- Jackson-Barrow County Medical Society.
- Glynn County Medical Society.

The Jackson-Barrow County Medical Society organized a health clinic under the direction of local physicians and are responsible to the Board of Directors of the Clinic. The clinic is being developed under the direction of the Council on Industrial Health with consulting assistance from the State Department of Public Health. The Committee on Industrial Health of the Fulton County Medical Society held one meeting with the State Department of Public Health and Atlanta Chamber of Commerce to discuss and organize an Industrial Health Program. An active program is being developed to attack the nutrition problem of the industrial workers and their families.

CLINICAL PATHOLOGY: The report by Dr. A. J. Ayers, Atlanta, chairman, was adopted. Due to restrictions on travel no meeting has been held and the committee did not have an official report.

ADVISORY COMMITTEE TO WOMAN'S AUXILIARY: The report of Dr. James N. Brawner, Atlanta, chairman, was adopted. The committee met with officers of the Auxiliary in Dublin, June 25, 1942. The work of the Auxiliary has been concentrated on "Education and Cooperation in Meeting the State and National Needs." Speakers have been supplied to civilian organizations for nutrition and tuberculosis programs. Health films on undernourishment, venereal diseases and other infectious conditions have been shown to professional and lay audiences. The organization of the Doctors' Aide Corps was approved by the committee. Its purpose was to aid the physicians in any way possible and to bring health programs before the people.

AWARDS: The report of Dr. Wm. R. Dancy, Savannah, chairman, was adopted and he announced that the Hardman Loving Cup Award would be made to Dr. James E. Paullin, Atlanta.

MEDICAL PREPAREDNESS: The report of Dr. W. A. Selman, Atlanta, chairman, was adopted. He reported that a great deal of time and effort had been put into the work of the Procurement and Assignment Service for physicians. The committee received valuable information at the Atlantic City session of the American Medical Association in June, 1942; again in November, 1942, at Chicago, where the chairman and Secretary-Treasurer attended the meetings of the Secretaries of the Constituent State Medical Associations sponsored by the A. M. A. Chief duties of the committee are:

1. Secure physicians for the armed forces;
2. Protect the citizens at home with adequate medical care when it can be obtained;
3. Protect the medical schools by leaving them sufficient teaching personnel;
4. Ample medical care for the essential industries within the State.

The object of the whole plan is to equalize and distribute medical care as evenly according to requirements among the military forces, industrial plants, medical schools, cities and rural communities as may be possible under existing conditions.

FRATERNAL DELEGATE TO ALABAMA: The report of Dr. Don F. Cathcart, Atlanta, delegate to the Medical Association of the State of Alabama, was adopted. The meeting was held in Birmingham, April 20-22, 1943. The meetings were well planned and attended. Excellent papers were read before the Association. Dr. James E. Paullin was a guest speaker and spoke to a large audience. It was a successful meeting.

MATERNAL MORTALITY AND INFANT DEATHS: The report of Dr. H. F. Sharpley, Jr., Savannah, chairman, was adopted. A comprehensive report will be published in THE JOURNAL when available space will permit.

ADVISORY COMMITTEE—GEORGIA DEPARTMENT OF PUBLIC HEALTH: The report of the chairman, Dr. Edgar H. Greene, Atlanta, was adopted. Three meetings of the committee have been held. The chairman and members of the committee have discussed many activities of the

Georgia Department of Public Health with Dr. T. F. Abercrombie, director. He is a close observer, efficient and always cooperative. Plans have been proposed for legislation which, if enacted, might permit the Georgia Department of Public Health to supply financial aid for medical and hospital care of indigent maternal patients and infants. Midwives are unsatisfactory and obstetric service should be a professional duty. Grants-in-aid to hospitals and maternity homes should be made where satisfactory service is rendered; also payments to private physicians should be provided for.

Titles of bills amended or passed at the last session of the General Assembly of Georgia were:

1. A revision of the Ellis Health Law;
2. A bill passed which will permit the State Board of Health to acquire property when necessary for public health service;
3. A bill passed which will change the method of compensation for the director of the Georgia Department of Public Health and permits an increase in salary;
4. A bill passed which authorizes the State Board of Health to microfilm records and reports for preservation;
5. A bill was passed known as the Prenatal Bill which requires physicians to make blood tests of all expectant mothers for syphilis. In the event the expectant mother is in the care of a midwife or other person, a blood test for syphilis must be provided for;
6. A bill was passed to prevent any property owner from renting or leasing property for immoral purposes or prostitution.

The Georgia Pediatric Society and the Advisory Committee from the Medical Association approved the plan of the Georgia Department of Public Health to distribute pertussis antigen to local health departments. The committee agreed to sponsor a bill suggested by the Committee on Nutrition to require enrichment of all flour and bread sold in Georgia.

ADVISORY—GEORGIA DEPARTMENT OF PUBLIC HEALTH: Supplementary.

The program for maternal and infant hospital and medical care shall be during this emergency and for six months thereafter unless curtailed for lack of funds. The Georgia Department of Public Health does not commit itself to provide medical and hospital care for maternal and/or infants of men in military service. The department is opposed to a cash basis plan. The plan for medical and hospital care of wives of the personnel of men in the fourth to seventh grades—Army, Navy, Marine Corps or Coast Guards—shall be eligible for such care if the woman whose husband is in enlisted service, whether deceased or missing in action in armed forces of the United States in any of the above mentioned services. The wife of any enlisted man in the grades mentioned may be eligible for medical and hospital maternity service under this plan without cost to the family when, in the opinion of the Georgia Department of Public Health, similar services are not otherwise available. The Georgia Department of Public Health will not absorb any activity which is in effect through any other source at the time this plan is initiated. Any infant under one year of age whose father

is an enlisted man in any of the services mentioned, will be eligible for pediatric, medical, surgical and hospital care as provided in this plan.

For additional information and application forms, write the Georgia Department of Public Health. Medical and hospital care will not be authorized where there are other convenient available facilities.

The Georgia Department of Public Health may elect to employ part or full-time physicians.

MEDICAL SERVICE: The delegates to the American Medical Association were authorized to vote as they deemed best for or against any resolution which may effect medical care.

AWARDS FOR SCIENTIFIC EXHIBITS: The report of the chairman, Dr. Wm. R. Dancy, Savannah, was adopted. There were exhibits by organizations and by individuals as follows:

- Emory University School of Medicine, Emory University;
- Cancer Commission of the Medical Association of Georgia;
- University of Georgia School of Medicine, Augusta;
- Dr. J. H. Kite, Atlanta;
- Dr. Wm. L. Dobes and Dr. Philip H. Nippert, Atlanta;
- Dr. C. G. Allison and Dr. Frank Mullino, Atlanta.

FLORIDA-FRATERNAL DELEGATE: Dr. J. C. Davis, Quincy, Florida, represented the Florida Medical Association at our annual session. He complimented the officers and committees for the excellent program and meeting. Referring to his own state, he insisted that Florida should appropriate \$2,000,000 to build and equip a medical school which would meet all the requirements of the Council on Medical Education and Hospitals of the American Medical Association. He mentioned difficulties encountered by prospective medical students from Florida to obtain scholarships in medical schools in other states, and particularly the sons of physicians.

CRAWFORD W. LONG MEMORIAL BUILDING FUND: Motion carried to appropriate an additional \$5,000 for the Crawford W. Long Memorial Building Fund.

ANNUAL BUDGET: The House of Delegates authorized the same amount for expenses for the fiscal year 1943-44 as was used in the fiscal year 1942-43.

SECRETARIAL HIRE: Funds were authorized for the employment of extra secretarial work as may be required.

DUES: Resolved, That the House of Delegates set the amount of dues at \$7 per capita for the year 1944.

MEDICAL ASSOCIATION OF GEORGIA *Financial Statement*

April 1, 1942, to April 30, 1943
ASSETS

April 1, 1942:	
Cash subject to Check—Fulton	
National Bank	\$11,475.92
Receipts	21,032.17
6—\$1,000 U. S. Govt. Bonds.....	4,869.74
4—\$1,000 U. S. Govt. Bonds.....	3,195.75
Accrued interest	234.54
Fulton National Bank.....	1,316.93
Accrued interest	13.19
Citizens & Southern Nat'l. Bank	5,355.68

Accrued interest	53.68	
First National Bank.....	5,314.68	
Accrued interest	53.27	
Standard Federal Savings & Loan Association	5,159.89	
Accrued interest	182.15	\$59,157.59
April 1, 1942, to		
April 30, 1943:		
Disbursements—itemized	\$18,384.28	
Cash and other assets on hand—		
10—\$1,000 U. S. Govt. Bonds.....	8,300.03	
Fulton National Bank.....	1,330.12	
Citizens & Southern Nat'l. Bank	5,409.36	
First National Bank.....	5,367.95	
Standard Federal Savings & Loan Association	5,342.04	
Fulton National Bank—Cash		
Subject to check.....	15,023.81	\$59,157.59

RECEIPTS AND DISBURSEMENTS

April 1, 1942, to April 30, 1943
Income

Dues	\$11,364.50	
Advertising	7,696.89	
Exhibits	2,646.00	
Public Relations Bureau.....	156.00	
Subscriptions	44.50	
Medical Defense and Dividend on Insurance	24.28	
Accrued interest on Government bonds and saving accounts in banks	536.83	\$22,469.00

Disbursements

Journal	\$ 8,381.20	
Salaries	2,655.00	
Medical Defense	1,442.19	
Public Relations Bureau.....	333.49	
Telephone and Telegraph.....	118.72	
Delegates to A. M. A.....	600.00	
President's Honorarium	300.00	
Special Committee Work.....	410.00	
Scientific Exhibit	381.80	
Technical Exhibit	215.20	
Special Work	380.50	
Painting and Making Pictures and Frames	158.89	
Expenses for Library.....	666.75	
Reporting Augusta Session.....	200.00	
Stationery and Office Equipment..	702.96	
Postage	330.00	
Pension	210.00	
Committee on Public Policy and Legislation (printing, mimeographing, binding, typewriter and desk repairs, badges, etc.)	897.58	
Increase in Cash on Hand.....	4,084.72	\$22,469.00

THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA *Income*

Dues from Members (subscriptions)	\$ 4,870.62
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Advertising	7,696.89
Subscriptions	44.50
Total	\$12,612.01

Disbursements

Printing	\$ 3,928.50
Salaries	2,655.00
Postage	292.00
Cuts for Illustrations.....	273.25
Envelopes	234.42
Commission on Advertising.....	151.68
News Clippings—Copyright, etc....	83.85
Contribution to Supplies (addressograph, graphotype, stationery)	762.50
Profit	4,230.81
Total	\$12,612.01

Operating Balance Sheet

April 1, 1942, to April 30, 1943

April 1, 1942—

Cash in Bank subject to check..\$11,475.92

Receipts from Normal Business

Operations 21,932.17 |

Total \$33,408.09 |

Disbursements—itemized \$18,384.28 |

April 30, 1943—

Cash in Bank subject to check.. 15,023.81

Total \$33,408.09 |

Disbursements Itemized

April 1, 1942, to April 30, 1943

No.	Name	Amount
3840—	Underwood Elliott Fisher Co. Repairing and cleaning typewriter.....\$	13.75
3849—	Office Outfitters, Inc. Desk for mimeograph stand.....	15.00
3850—	W. V. Ogletree One table to use with addressograph	7.50
3851—	Southern Engraving Co. Cuts for illustrations.....	40.47
3852—	Ivan Allen-Marshall Co. Rubber bands, filing cards, yellow second sheets, wrapping paper and twine	11.20
3853—	Southern Press Clipping Bureau News clippings for February and March, 1942	10.00
3854—	Shaw-Walker Desk, telephone stand, 3 chairs, waste basket shelves for cupboard steel cabinets	252.80
3855—	The Sommer Badge Mfg. Co. 857 Badges for the Augusta session April 28 - May 1, 1942.....	51.02
3856—	R. B. Camp Co. Steel filing cabinet.....	29.70
3857—	Victor Animatograph Corporation Express charges to and from the Victor Animatograph Corporation for repairs and shipped to Dr. Z. V. Johnston, Calhoun, Councilor	5.18
3858—	J. M. Marbut Co. Binding 11 volumes of the 1941 issues of The Journal.....	23.65
3859—	A. B. Dick Co. Semi-annual service charges on mimeograph machine	9.00
3860—	Grover Middlebrooks, Atty. Fee for John T. Coyle, Atty., in defense of the suit of Luke Browning et al vs. Dr. W. R. McGinty, Moultrie....	150.00
3861—	Edgar D. Shanks, M.D. Salary for Secretary-Treasurer for March, 1942	250.00
3862—	H. L. Rowe Salary for Executive Secretary for March, 1942	192.50
3863—	Mrs. G. R. Sims Extra secretarial work from April 30, 1941, to April 1, 1942.....	137.50
3864—	H. L. Rowe Extra work for Public Relations Bureau	85.00
3865—	Edgar D. Shanks, M.D. Necessary travel expense as Secretary-Treasurer and Director of Public Relations Bureau April 30, 1941, to April 1, 1942	158.00
3866—	Cash Miscellaneous items to furnish office; 3 chairs, \$40; fluorescent desk lamp, \$19; desk set, \$7.50; step ladder, \$6; repairs and express charges on projectors; floor wax and polish.....	84.64
3867—	Francis P. Parker, M.D. Postage and secretarial work for the scientific exhibit at the Augusta session, April 28 - May 1, 1942	28.50
3868—	J. F. Thompson Engraving Co. Letterheads, envelopes for general use and mimeographing for the Association, president, other officers and committees	105.25
3869—	Capital Electric Studios, Inc. Fluorescent desk lamps, fixtures and installation	51.50
3870—	Walter W. Brown Publishing Co. Printing and mailing 2400 copies of the March, 1942, issue of 92 page Journal	448.88
3871—	John Wynes Special janitor work.....	5.00
3872—	Atlanta Envelope Co. 52,000 envelopes to mail The Journal	234.42
3873—	John H. Harland Co. Letterheads and envelopes.....	171.00
3874—	J. F. Thompson Engraving Co. Postage, \$18; printing, \$3.75.....	21.75
3875—	L. F. Livingston, Postmaster Postage	30.00
3876—	Western Union Telegraph Co. Account to April 1, 1942.....	.83
3877—	Southern Bell Tel. & Tel. Co. Account to March 21, 1942.....	14.02
3878—	Miss Annie Jacks Balance of commissions on advertising orders to date	19.62

3879—L. F. Livingston, Postmaster Postage	30.00	3898—The Floding Co. Ribbons for the winners in the scientific exhibit, Augusta session, April 28 - May 1, 1942.....	4.61
3380—J. B. Lites Work and lumber for commercial exhibit	19.50	3899—F. C. Bate Signs for the scientific exhibit at the Augusta session, April 28 - May 1, 1942	34.54
3881—Moog Sign System Painting signs for the commercial exhibit and for Dr. Campbell, Chairman of Cancer Commission.....	33.00	3900—Binder Picture Frame Mfg. Co. Framing pictures of the proceedings of the organization meeting of the State Medical Convention in Macon, March 20-21, 1849.....	18.75
3882—J. Q. Fulghum Watchman for three nights at \$4 (Augusta session—commercial exhibit)	12.00	3901—Shaw-Walker Leather seat pad.....	6.25
3383—J. E. Holley Watchman for four nights at \$4.....	16.00	3902—Southern Bell Tel. & Tel. Co. Telephone account to April 21, 1942....	10.03
3884—Mrs. Wirt Plane Four days' work at registration desk....	16.00	3903—Grover Middlebrooks, Atty. Stenographic copy of the court record in trial of suit of Willie E. Slack vs. Dr. J. H. Crawford, Atlanta.....	24.40
3885—Cash Care and repairing, also operating motion picture and lantern slide machines at the Augusta session, April 28 - May 1, 1942	20.00	3904—Grover Middlebrooks, Atty. Deposit to cover cost in suit of Willie E. Slack vs. Dr. J. H. Crawford, Atlanta	15.00
3886—Cash Paid two electricians, one foreman and workers for commercial exhibitors, in general assembly hall, cloth, stenographers for two Reference Committees, taxi, bell boys.....	51.40	3905—S. & H. X-Ray Co. One illuminator and four view boxes and express charges to Augusta for the annual session, April 28 - May 1, 1942	18.75
3887—H. L. Rowe Salary for Executive Secretary for April, 1942	192.50	3906—Western Union Telegraph Co. Account to May 1, 1942.....	6.05
3888—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer for April, 1942	250.00	3907—J. Palmer Mayo Operating movie machines for the Association and Committee on Scientific Exhibit, during the annual session of the Association, April 28 - May 1, 1942	8.00
3889—Walter W. Brown Publishing Co. Printing and mailing 2400 copies of the April, 1942, issue of The Journal..	337.72	3908—Bon Air Hotel, Augusta Expenses of Dr. Frank H. Lahey, Boston, invited guest of the Association Augusta session, April 28 - May 1, 1942	18.98
3890—Drs. Lake and Ayers Postage and stationery for mailing letters to secretaries of county medical societies by the chairman of the Committee on Clinical Pathology.....	7.81	3909—J. D. Grant Gas, oil, meals, rent, paint, lumber, nails, electrician for the scientific exhibit, Augusta, April 28 - May 1, 1942	145.20
3891—T. C. Davison, M.D. Postage, stationery and stickers for Committee on Appendicitis.....	2.75	3910—L. F. Livingston, Postmaster Postage	30.00
3892—Wayne Smith Making 31 lantern slides shown at the Augusta session, April 28 - May 1, 1942, of deceased members.....	31.00	3911—J. D. Grant Trucking equipment from Milner to Augusta and back to Milner, also loading and unloading, together with storage at Milner for one year of equipment for the scientific exhibit....	108.00
3893—The Tidwell Co. Typewriter ribbon and carbon paper coupons	21.50	3912—Marion C. Pruitt, M.D. Payment on expenses for delegate to attend the Atlantic City session of the American Medical Association, June 9-12, 1942	150.00
3894—Darby Printing Co. Printing the April and May, 1942, issues of the Medical News.....	42.00	3913—Wm. A. Mulherin, M.D. Payment on expenses for delegate to	
3895—Southern Engraving Co. Cuts for illustrations.....	33.67		
3896—LeRoy Ellison Showing films at the Augusta session April 28 - May 1, 1942.....	10.00		
3897—Walter W. Brown Publishing Co. Programs for the Association and the Woman's Auxiliary for the Augusta session April 28 - May 1, 1942.....	126.25		

attend the Atlantic City session of the American Medical Association, June 9-12, 1942	150.00	3931—H. L. Rowe Salary for Executive Secretary for June, 1942	192.50
3914—O. H. Weaver, M.D. Payment on expenses for delegate to attend the Atlantic City session of the American Medical Association, June 9-12, 1942	150.00	3932—Photo Process Engraving Co. Cuts for illustrations	34.84
3915—Edgar D. Shanks, M.D. Payment on expenses for special representative to attend the Atlantic City session of the American Medical Association, June 9-12, 1942	150.00	3933—Carithers-Wallace-Courtney Paper staple fasteners	2.50
3916—Southern News Clipping Bureau News clippings for April and May, 1942	10.00	3934—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer for June, 1942	250.00
3917—Photo Process Engraving Co. Cuts for illustrations	14.04	3935—Register of Copyrights Deposit to pay fees for copyrighting The Journal	23.85
3918—L. F. Livingston, Postmaster Deposit for postage to mail The Journal	25.00	3936—J. L. Campbell, M.D., Chairman, Cancer Commission Pay on expenses of Cancer Commission	150.00
3919—Darby Printing Co. Printing 600 copies of the June, 1942, issue of the Medical News	21.00	3937—Grover Middlebrooks, Atty. Retainer for attorney from July 1, 1942, to December 31, 1942	500.00
3920—Logan Clarke Insurance Co. Surety bond for Secretary-Treasurer for one year	5.00	3938—L. F. Livingston, Postmaster Postage	30.00
3921—Associated Mutuals Insurance Co. Marine insurance on pictures, films and other equipment	57.80	3939—Western Union Telegraph Co. Account for May and June, 1942	5.92
3922—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer for May, 1942	250.00	3940—Grover Middlebrooks, Atty. Expenses in the suit of Adolph Shulhafer vs. Dr. St. J. R. deCaradeuc	\$55.60
3923—H. L. Rowe Salary for Executive Secretary for May, 1942	192.50	Cost for reporting suit of Jernigan vs. Dr. H. G. Huey, Homerville	2.94
3924—Mrs. Katherine B. Gray Stenographic work for Dr. Grady N. Coker and making copies of the report for the House of Delegates, Augusta session, April 28 - May 1, 1942	2.50	3941—Southern Bell Tel. & Tel. Co. Account to June 21, 1942	6.36
3925—Walter W. Brown Publishing Co. Printing and mailing 2200 copies of the May, 1942, issue of The Journal	330.65	3942—Darby Printing Co. Printing 600 copies of the June, 1942, issue of the Medical News	21.00
3926—Southern Bell Tel. & Tel. Co. Telephone account to May 21, 1942	6.36	3943—Walter W. Brown Publishing Co. Printing and mailing 2300 copies of the July, 1942, issue of The Journal	348.81
3927—Biltmore Hotel Restaurant account for the meeting of the Committee on Industrial Health—Doctors C. W. Roberts, L. M. Petrie, E. D. Shanks and Oren Johnson from the A. M. A.	6.05	3944—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer for July, 1942	250.00
3928—L. F. Livingston, Postmaster Postage	30.00	3945—H. L. Rowe Salary for Executive Secretary for July, 1942,	192.50
3929—Walter W. Brown Publishing Co. Printing and mailing 2300 copies of the June, 1942, issue of The Journal	312.49	3946—Miss Annie Jacks Commission on advertising contracts ..	5.25
3930—Grover Middlebrooks, Atty. Expenses to and from Miami, Florida, to take depositions in the suit of Mrs. Ethel Jernigan and R. C. Jernigan vs. H. G. Huey and Dr. R. A. Schanze, Homerville	75.25	3947—L. F. Livingston, Postmaster Deposit to pay postage to mail The Journal	25.00
		3948—Southern Bell Tel. & Tel. Co. Account to July 21, 1942	7.00
		3949—Ivan Allen-Marshall Co. Gem clips and second sheets	6.10
		3950—Victor Animatograph Corporation Parts for movie machines	7.31
		3951—Davison-Paxon Co. Electric Fan	23.95
		3952—Georgia Power Co. Electric Fan	13.95
		3953—I. M. Lucas, M.D., Sec'y. Refund on dues of Dr. Phil Robertson—new member—dues paid for last	

half of year 1942.....	3.50	House of Delegates.....	51.75
3955—Southern Press Clipping Bureau		3975—Southern Press Clipping Bureau	
News clippings for June and July, 1942.....	10.00	News clippings for August and September, 1942.....	10.00
3956—Western Union Telegraph Co.		3976—Southern Typewriter Co.	
Account to August 1, 1942.....	1.14	Cleaning and repairing typewriter.....	6.75
3957—Darby Printing Co.		3977—Edgar D. Shanks, M.D.	
Printing 600 copies of the August, 1942, issue of the Medical News.....	21.00	Salary for Secretary-Treasurer for September, 1942.....	250.00
3958—Miss Winifred H. McLean		3978—H. L. Rowe	
Reporting Augusta session, April 28-May 1, 1942.....	200.00	Salary for Executive Secretary for September, 1942.....	192.50
3954—L. F. Livingston, Postmaster		3979—Walter W. Brown Publishing Co.	
Postage.....	30.00	Printing and mailing 2250 copies of the September, 1942, issue of The Journal.....	307.84
3955—Southern Press Clipping Bureau		3980—Southern Bell Tel. & Tel. Co.	
News clippings for June and July, 1942.....		Telephone account to September 21, 1942.....	6.84
3959—Walter W. Brown Publishing Co.		3981—Member	
Printing and mailing 2200 copies of the August, 1942, issue of The Journal.....	325.80	Pension from Benevolent Fund.....	30.00
3960—American Surety Co. of N. Y.		3982—Grover Middlebrooks, Atty.	
Surety bond for Executive Secretary for one year.....	5.00	Expenses to and from Waycross for trial of suit Jernigan vs. H. G. Huey, M.D., et al.....	31.10
3961—Photo Process Engraving Co.		3983—L. F. Livingston, Postmaster	
Cuts for illustrations.....	54.05	Postage.....	30.00
3962—Addressograph Sales Agency		3984—Fulton County Medical Society	
Ribbon for addressograph.....	.95	Extra work on office.....	125.00
3963—Searcy & Co.		3985—Western Union Telegraph Co.	
\$500 Insurance on material for scientific exhibit.....	10.00	Account to October 1, 1942.....	1.88
3964—Edgar D. Shanks, M.D.		3986—Medical Society of the State of New York	
Salary for Secretary-Treasurer for August, 1942.....	250.00	Book entitled "When Doctors Are Rationed".....	2.00
3965—H. L. Rowe		3987—Darby Printing Co.	
Salary for Executive Secretary for August, 1942.....	192.50	Printing 600 copies of the October, 1942, issue of the Medical News.....	21.00
3966—L. F. Livingston, Postmaster		3988—Herbert L. Treusch, M.D.	
Postage.....	30.00	Picture frame for portrait of Dr. L. D. Ford, first president of the Association.....	13.25
3967—Southern Bell Tel. & Tel. Co.		3989—Grover Middlebrooks, Atty.	
Telephone account to August 21, 1942.....	7.66	Expenses to and from Homerville in trial of suit of estate of Ethel Jernigan vs. Dr. H. G. Huey and Dr. Schanze....	31.90
3968—Southern Engraving Co.		3990—American Medical Association	
Cuts for illustrations.....	21.85	One copy of the Seventeenth Edition of the American Medical Directory....	15.00
3969—Darby Printing Co.		3991—Miss Annie Jacks	
Printing 600 copies of the September, 1942, issue of the Medical News.....	21.00	Commission on advertising order.....	5.25
3970—A. B. Dick Co.		3992—Walter W. Brown Publishing Co.	
Semi-annual service charge on mimeograph machine.....	9.00	Printing and mailing 2300 copies of the October, 1942, issue of The Journal.....	280.75
3971—Member		3993—Grover Middlebrooks, Atty.	
Pension from Benevolent Fund.....	30.00	Copy of opinion by the U. S. Circuit Court of Appeals in the suit of Willie E. Slack vs. Dr. J. H. Crawford.....	3.00
3972—Herbert L. Treusch, M.D.		3994—Photo Process Engraving Co.	
Painting portrait of Dr. L. D. Ford, first president of the Medical Association of Georgia and express charges on original picture to and from Augusta.....	104.31	Cuts for illustrations and pictures of slides used for making cuts.....	36.24
3973—Grover Middlebrooks, Atty.		3995—Edgar D. Shanks, M.D.	
Printing used in suit of Slack vs. J. H. Crawford, M.D., and reporting trial of suit of Mrs. Sarah Pilgram vs. R. E. Hamilton, M.D., and J. W. Landham, M.D.....	53.00	Salary for Secretary-Treasurer for October, 1942.....	250.00
3974—Walter W. Brown Publishing Co.			
Cards for members in military service and reprint of the proceedings of the			

3996—H. L. Rowe Salary for Executive Secretary for October, 1942	192.50	4018—John B. Fitts, M.D. Expenses incurred in the work of the Procurement and Assignment Serv- ice of physicians	100.00
3997—Southern Bell Tel. & Tel. Co. Telephone account to October 21, 1942	7.82	4019—Miss Annie Jacks Commission on advertising contracts..	67.56
3998—L. F. Livingston, Postmaster Postage	30.00	4020—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer for De- cember, 1942	250.00
3999—Member Pension from Benevolent Fund.....	30.00	4021—H. L. Rowe Salary for Executive Secretary for December, 1942	192.50
4000—L. F. Livingston, Postmaster Deposit for postage to mail The Journal	50.00	4022—Southern Bell Tel. & Tel. Co. Telephone account to December 21, 1942	6.60
4001—L. F. Livingston, Postmaster Postage	30.00	4023—Member Pension from Benevolent Fund.....	30.00
4002—Addressograph Sales Agency Ribbon for Addressograph and work	2.05	4024—L. F. Livingston, Postmaster Postage	30.00
4003—Darby Printing Co. Printing 600 copies of each November and December, 1942, issues of the Medical News	42.00	4025—Franklin Printing Corporation Printing and mailing 2350 copies of the December, 1942, issue of The Journal	331.24
4004—Ivan Allen-Marshall Co. T. W. paper, mimeograph paper, gem clips, twine, wrapping paper, journal, index tabs and pencils.....	15.80	4026—Central of Georgia Railway Co. Government tax on mileage for ad- vertising	1.50
4005—Binder Picture Frame Mfg. Co. Picture frame for the proceedings of the organization meeting of the Medi- cal Association of Georgia, Macon, March 20, 1849.....	22.58	4027—Southern Press Clipping Bureau News clippings for October, Novem- ber, December, 1942, and January, 1943	20.00
4006—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer for No- vember, 1942	250.00	4028—Grover Middlebrooks, Atty. Retainer for attorney's fee, January 1 to June 30, 1943.....	500.00
4007—H. L. Rowe Salary for Executive Secretary for November, 1942	192.50	4029—Miss Annie Jacks Commission on orders for advertising	54.00
4008—Member Pension from Benevolent Fund.....	30.00	4030—L. F. Livingston, Postmaster Postage	30.00
4009—Franklin Printing Corporation Printing and mailing 2300 copies of the November, 1942, issue of The Journal	299.64	4031—Georgia Power Co. 1 Electric clock, tax and 2 lamps.....	37.10
4010—L. F. Livingston, Postmaster Deposit for postage due account.....	10.00	4032—Wrigley Co. Work on electros for advertisers.....	1.82
4011—James A. Redfearn, M.D. Honorarium for president 1942-43.....	300.00	4033—Franklin Printing Corporation Notices inserted in December, 1942, issue of The Journal in reference to dues	13.00
4012—S. H. Benedict Drawing floor space and prints for commercial exhibits in Biltmore Hotel to be used May 11-14, 1943, during the Atlanta session.....	39.50	4034—A. B. Dick Co. Mimeograph stencil sheets.....	3.15
4013—J. B. Richards Co. 2,000 Membership cards for 1943.....	18.95	4035—Western Union Telegraph Co. Telegraph account for January, 1943	1.04
4014—Artercraft Engraving Co. Plate for Nestle's Advertising.....	5.37	4036—Darby Printing Co. Printing 600 copies of the January, 1943, issue of the Medical News.....	21.00
4015—Southern Bell Tel. & Tel. Co. Telephone account to November 21, 1942	7.39	4037—Edgar D. Shanks, M.D. Salary for Secretary-Treasurer for January, 1943, less Victory Tax.....	240.10
4016—L. F. Livingston, Postmaster Postage	30.00	4038—H. L. Rowe Salary for Executive Secretary for January, 1943, less Victory Tax.....	185.47
4017—W. A. Selman, M.D. Expenses incurred in the work of the Procurement and Assignment Serv- ice of physicians	100.00	4039—Member Pension from Benevolent Fund.....	30.00
		4040—Southern Bell Tel. & Tel. Co. Telephone account to January 21, 1943	7.05
		4041—Darby Printing Co.	

500 Contract forms and rate slips for advertising	16.50	4063—L. F. Livingston, Postmaster	
4042—Atlanta Linen Service		Postage	30.00
Towel service for January and February, 1943	2.45	4064—Miss Annie Jacks	
4043—Franklin Printing Corporation		Commission on advertising orders.....	26.25
Printing and mailing 2350 copies of the January, 1943, issue of The Journal	302.34	4065—Southern Bell Tel. & Tel. Co.	
4044—Western Union Telegraph Co.		Telephone account to April 1, 1943....	8.24
Wires to doctors over the State in reference to "Naturopath" bill before the Legislature—urged to defeat it.....	7.43	4066—The Sommer Badge Mfg. Co.	
4045—Artacraft Engraving Co.		Badges for the Atlanta session, May 11-14, 1943	55.46
Cut for illustration	2.28	4067—Grover Middlebrooks, Atty.	
4046—L. F. Livingston, Postmaster		Telephone call to Waycross in reference to suit of Jernigan vs. Dr. H. G. Huey	1.44
Postage	30.00	4068—Edgar D. Shanks, M.D.	
4047—Fulton County Medical Society		Salary for March, 1943, for Secretary-Treasurer, less 5% Victory tax withheld	240.10
Library expenses for one year to February 23, 1944.....	500.00	4069—H. L. Rowe	
4048—L. F. Livingston, Postmaster		Salary for Executive Secretary for March, 1943, less 5% Victory tax withheld	185.47
Postage	30.00	4070—Member	
4049—Darby Printing Co.		Pension from Benevolent Fund for April, 1943	30.00
Printing 600 copies of each the February and March, 1943, issues of the Medical News	42.00	4071—Southern Press Clipping Bureau	
4050—A. B. Dick Co.		News clippings for February and March, 1943	10.00
Mimeograph stencil sheets and ink.....	11.30	4072—Franklin Printing Corporation	
4051—Edgar D. Shanks, M.D.		Printing and mailing 2300 copies of the March, 1943, issue of The Journal and reprints for Dr. L. M. Blackford, associate editor	313.69
Salary for Secretary-Treasurer for February, 1943, less 5 per cent Victory Tax withheld	240.10	4073—Artacraft Engraving Co.	
4052—H. L. Rowe		Cuts for illustrations.....	29.26
Salary for Executive Secretary for February, 1943, less 5 per cent Victory Tax withheld	185.47	4074—L. F. Livingston, Postmaster	
4053—Miss Annie Jacks		Deposit for postage to mail The Journal	50.00
Commission on advertising orders.....	28.62	4075—J. H. Duggan, Jr.	
4054—Member		Two copies of House Bill No. 25 (Naturopath)	6.00
Pension from Benevolent Fund.....	30.00	4076—Herff-Jones Company	
4055—A. B. Dick Co.		President's Gold Key for President, Jas. A. Redfearn, 1942-1943.....	9.26
Service on mimeograph machine to August 31, 1943.....	9.00	4077—Addressograph Sales Agency	
4056—Southern Bell Tel. & Tel. Co.		Work on addressograph and 1,000 buff cards for name plates.....	3.86
Telephone account to February 21, 1943	7.30	4078—L. F. Livingston, Postmaster	
4057—L. F. Livingston, Postmaster		Postage	30.00
Postage	30.00	4079—Marion H. Allen, Collector Internal Revenue	
4058—Franklin Printing Corporation		Victory Tax of 5% withheld from salary of Edgar D. Shanks, M.D., for quarter ending March 31, 1943	\$29.70
Printing and mailing 2350 copies of the February, 1943, issue of The Journal	302.34	Victory Tax of 5% withheld from salary of H. L. Rowe for quarter ending March 31, 1943..	21.09
4059—Ivan Allen-Marshall Co.		April 25, 1942—Check drawn by W. C. McGeary, M.D., Madison, returned unpaid and paid later.....	21.00
Ink, pin points, letter folders, paste, pencils, erasers and stamp pad.....	10.45	Fulton National Bank	
4060—J. L. Campbell, M.D.		Exchange on non-par items.....	8.98
Expenses for Committee on Public Policy and Legislation.....	60.00		
4061—Franklin Printing Corporation			
Binding 11 volumes of the 1942 issues of The Journal	26.50		
4062—G. D. Bowman, Washington, D. C.			
Picture of Dr. Crawford W. Long statue in Statuary Hall, Washington, D. C.	5.00		
			<hr/>
			\$18,384.28

THE PRESIDENT'S PAGE

MEDICAL AND HOSPITAL CARE FOR THE WIVES AND INFANTS OF SELECTED MILITARY PERSONNEL

On July 28, 1943, at the Academy of Medicine in Atlanta, was held a meeting of the Advisory Committee of the Medical Association of Georgia to the Georgia Department of Public Health for the consideration of a plan already adopted by the Department of Public Health, and by the Board of Trustees of the Georgia Hospital Association.

The importance and timeliness of this "Georgia Plan" merits a short discussion on this page, and information as to where a full discussion may be found:

"The EMIC (emergency mother-infant care) plan will be administered and supervised by the Georgia Department of Public Health through its Division of Maternal and Child Health."

"Methods of administration approved under the 1943 MCH plan will apply to the administration of EMIC funds."

Eligibility for Care Under the Plan

"Any woman in Georgia at the time of application, irrespective of legal residence, whose husband is an enlisted man, whether deceased or missing in action, in the armed forces of the United States, of the fourth, fifth, sixth or seventh grades of the Army, Navy, Marine Corps or Coast Guard, and who makes application for such care, will be eligible for the medical and hospital maternity service provided under this plan without cost to the family when similar services are not otherwise available from medical or hospital facilities of the Army or Navy or from facilities provided by or through official state or local health agencies." . . . "Similarly any infant under the age of one year whose father meets conditions outlined above will be eligible for pediatric hospital and medical care as provided in the plan. Likewise, any wife or infant, whose husband or father is in first, second or third grades and who meets conditions outlined above, may be considered

eligible on an individual basis, provided the state agency is of the opinion that such case deserves assistance.

"Application forms supplied by the Georgia Department of Public Health will be utilized in making application, and such application forms shall be made available through hospitals, health departments, Red Cross chapters and other agencies that prove advantageous from the standpoint of making such forms readily available to applicants." The application forms will be completed by the applicant, or in the applicant's behalf, and by the attending physician. Such application forms will be forwarded to the Maternal and Child Health Division where they will be reviewed and authorized." . . .

Payment for Maternity Care

"Private practitioners will be compensated on a case basis rather than on a fee for visit basis." . . . "Physicians accepting maternity cases under the plan will be paid a fee of forty dollars per case for all services they render a patient during the antepartum, intrapartum or postpartum period, provided a minimum of five antepartum visits are made, and this payment shall constitute compensation in full for services rendered to maternity cases whether the care rendered is related to a condition arising as a result of pregnancy or not. General practitioners are urged to refer to the consultant approved by the state agency all patients with serious complications, whether obstetric or non-obstetric, and the consultant will be reimbursed for such services at the rate authorized by the Georgia Department of Public Health." . . . "Consultants shall be paid the sum of ten dollars per case for consultation and the consultants shall be eligible to receive a maximum of forty dollars for major operative procedures." . . . "Medical care for sick infants will be provided on a fee basis. The maximum expenditure per case unless reauthorized will be twenty dollars. Physicians shall be allowed the sum of two dollars for each visit whether at home or hospital. Initial authorization shall not ex-

ceed a period of time in excess of three weeks. Reauthorizations will not be made without review of the case. Pediatric consultants will be eligible to receive three dollars per visit with the maximum limit of twelve dollars per case provided such cases have been referred to consultants by other physicians. Surgical fees for infants shall be based on a rate of fifteen dollars for minor surgery and a maximum of thirty-five dollars for major surgery."

In like manner, hospital and nursing care have been given in the same bulletin from which I have quoted so freely.

"This program shall remain in effect for the duration of the emergency and six months thereafter unless curtailed because of inadequacy of funds, or because of policies or conditions which arise that make it impracticable." The entire article from which I have quoted, as well as *Federal Legislative Bulletin 28* and *Maternal and Child Health Participation Plan* may be had on request to the Georgia Board of Health.

The Advisory Committee of the Medical Association of Georgia to the Georgia Department of Public Health, adopted the "Georgia Plan" with the distinct understanding that it was "for the duration," and was a patriotic appreciation of our brothers in the armed forces.

W. A. SELMAN, M.D.

RECRUITMENT OF NURSES

The Nursing Supply and Distribution Unit of the War Manpower Commission has been made the Nursing Division of the Commission's Procurement and Assignment Service, Paul V. McNutt, chairman of the War Manpower Commission, announced recently.

"The objectives of the Nursing Division," Mr. McNutt explained, "are the same as those divisions of the Procurement and Assignment Service now dealing with the dentist, veterinary, physician, and sanitary engineer for their professions. They involve the recruitment of sufficient nurses to meet the needs of the Armed Forces and the pro-

vision of minimum adequate nursing care for the civilian population, non-military governmental agencies, and industry."

Recommendations regarding the operation of the nursing division will be made to the Directing Board of Procurement and Assignment Service, headed by Dr. Frank H. Lahey, of Boston, by a Nursing Advisory Committee. The Nursing Division is represented on all the present advisory committees to the Directing Board that are concerned with problems that affect nurses. Miss Katherine Tucker, Philadelphia, Pa., and Miss Laura Grant, New Haven, Conn., have been appointed to the Directing Board.

Miss L. Louise Baker has been named an Assistant Executive Officer of the Procurement and Assignment Service, to work under the general direction of the Directing Board and Dr. Maxwell Lapham, Executive Officer. She will have the responsibility of carrying out the functions of the Nursing Division and will be assisted by Miss Ruth A. Heintzelman. The already existing technical, clerical and statistical sections of the Central Office of Procurement and Assignment Service will be utilized and four nurse consultants will be added to the staff to supervise the work in the field.

The activities of the Nursing Division in the field will be carried out by separate state and local committees. The Supply and Distribution Committee of the State Nursing Councils for War Service, representing the various nursing organizations in each State and serving without compensation, will act as the State Committee for Nurses for the Procurement and Assignment Service and the Local Nursing Council for War Service will act as the local committee in each community. Both State and Local Committees will function independently of but in cooperation with the State Committees for Physicians of the Procurement and Assignment Service.

WARNS OF CARBON TETRACHLORIDE

"The toxicity of carbon tetrachloride in cleaning solutions is still not as well known as it should be in view of the seriousness and extensiveness of poisoning which can result from the inhalation or absorption of this substance," *The Journal of the American Medical Association* for July 24 warns in answer to a query.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

AUGUST, 1943

TUBERCULOSIS

To discover tuberculosis at the time it should be discovered, it must be looked for. The beginnings of the foundation for this axiomatic statement have been established for some years, and the present policy of the armed forces of this country are predicated upon them; but it took the results of the induction examinations to crystallize out the tremendous significance of this truth into dazzling brilliance. The examination of the inductee into the military service has become the greatest tuberculosis case-finding campaign the world has ever seen. A chest film is made on every draftee, and the extent to which undiscovered tuberculosis has been revealed in the apparently well groups has been revolutionary.

It is so well known that repetition here is not needed, that the optimum time to find tuberculosis is in its earliest demonstrable manifestations. At this time it can well be stated that tuberculosis is the most readily cured of all chronic diseases that cause death. It is not so well known, however, that the x-ray examination is by far the best and in most instances the only way by which this demonstration can be accomplished. Finally, it is little known that the x-ray film can reveal a clinically significant lesion in the lungs months or years before symptoms appear.

Already there is being increasingly shown a sharp reversal of tuberculosis statistics. This is strikingly so in the case of sanatorium statistics. Formerly, the average figure for far advanced cases on admission to the sanatorium was approximately 80 per cent. Today this very doleful figure is being gradually but progressively whittled down in favor of moderately advanced and early cases. If the availability of institutional beds could keep pace with early diagnosis — and most unfortunately this is not so in most sections of the country —

then this reversal of figures could be startling indeed.

Even though available beds are not yet to be had, it is a great step in the right direction to find these early cases, to inaugurate proper planning for their future and to prevent, in a large measure, cross infection. In these days of war stress, with overcrowding and easy employment with attractive wages for all willing to work, this latter factor of cross infection, or mass infection, looms all important.

Let it be urged that every doctor's office, as far as tuberculosis is concerned, be an induction center. X-ray your patients. Find those cases of early tuberculosis and try, in mighty concert, to prevent this war from being followed by an increased toll of illness and death, as has always blackened the wake of previous wars.

CHAMP H. HOLMES, M.D.

THE CHRONOMETRY OF LIFE

Fifty years ago a learned member of the Medical Society of the State of North Carolina undertook¹ to account for the remarkable records as to longevity of Adam and certain of his male descendants for several generations. (Apparently the women were not thought of enough importance to have their ages at death recorded.)

Even though the application of Dr. Ivey's method would have some beget children while mere children themselves, it is not without ingenuity or interest.

I have as firm a belief in the truth of the Bible as anyone and I don't want to rudely shake the faith of anybody, but there are many things in the Bible that cannot be taken literally.

Anatomically and physiologically we are the descendants of Adam. Why should we be like him in every other particular, and totally unlike him as respects the duration of life. I argue that he was constructed as we are; that he lived under the same sun and breathed the same air as we; that he worked for a living as we do and that he died at the age of 77½ years, a little above the recognized limit of three score years and ten as since laid down by Moses.

1. W. P. Ivey, M.D., Lenoir, in Trans. Med. Soc. N. C., 1896.

From the time of Adam down to Noah the time of life was in round numbers 900 years. The Hebrew word translated year literally means iteration or recurring periods. There was not sufficient astronomical knowledge at that early day to know a year by the revolution of the earth around the sun, but the time from one full moon to the next could be seen by all, so a year of time meant a month and not 365 days. Dividing the average age by 12 makes the ages of the early Bible people about 75 years. The calculation of a year by moons is still in use among some semibarbarous nations. It is but natural that the Hebrew's computation should resemble other neighboring nations of antiquity, and some Greek authors say that this was the method of the Egyptians, with whom the Hebrews were so closely connected. Diodorus and Plutarch confirm this.

From the time of Shem to Terah the father of Abraham, the age of the people was no longer 900 years, but 450. Now this was a sudden shortening of the period of life or a change in the method of counting a year took place at that time, which was probably the case. A year now is composed of two moons instead of one and by dividing 450 by six it is again brought down to 75. In Genesis, the 8th chapter and 2nd verse, we find the words: "While the earth remaineth, seed time and harvest, heat and cold, summer and winter shall change not." There were six seasons of two months each.

In the last period from Abraham to Moses the age of the people was again reduced from 450 years to 150 years, which must be divided by two to bring it into conformity with the preceding ages and those of the present. This is founded on the double rainy season in warm countries. The ancient Germans reckoned a year by two seasons of six months each, the early Greeks used the same measure and to this day the Icelanders do the same. There is apparently some discrepancy in the ages of the last one or two generations of each of these three periods, as the method of computing a year changed during their lives and their individual ages must be computed in part by both methods.

As apple trees bore apples in the Garden

of Eden and will continue to bear no other kind of fruit as long as the earth remains, so this time rate of life in all its phases has come down to us through 6000 years and will go on the same till life temporal is merged into life eternal.

If all of us physicians should fall in line with Brown-Sequard and should search day and night for the elixir of life we would all reach the end of life with no other reward than that of folly.

I cannot tell you how to live 200 years. Wish I could. Nor can I tell you how to reach the age of 100 years, the possible limit, nor even 70 years, the commonly recognized limit. There is no royal road to the attainment of old age.

—From the editorial pages of *Southern Medicine and Surgery*, July 1943.

MEDICAL ASSOCIATION OF GEORGIA

Ninety-Fifth Annual Session

Savannah

April 25, 26, 27, 28, 1944

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David L. Wood.....	Dalton
Z. V. Johnston.....	Calhoun
W. F. Reavis.....	Waycross
S. T. R. Revell.....	Louisville
H. M. McKemie.....	Albany
Hartwell Joiner.....	Gainesville
W. H. Roberts.....	Augusta
H. E. Talmadge.....	Athens
A. H. Hilsman.....	Albany

*Executive Committee, Women's Field Army of the
American Society for the Control of Cancer*

J. L. Campbell, Chairman.....	Atlanta
E. L. Bishop.....	Atlanta
J. J. Clark.....	Atlanta
Robert C. Pendergrass.....	Americus
Enoch Callaway.....	LaGrange
C. C. Harrold.....	Macon
T. F. Abercrombie.....	Atlanta
J. V. Rogers.....	Cairo

Orthopedics

Fred G. Hodgson, Chairman.....	Atlanta
T. P. Goodwyn.....	Atlanta
H. M. Michel.....	Augusta
F. Bert Brown.....	Savannah
J. Hiram Kite.....	Atlanta
L. H. Muse.....	Atlanta
C. H. Watt.....	Thomasville
F. K. Neill.....	Albany

Ophthalmology

Grady E. Clay, Chairman.....	Atlanta
S. J. Lewis.....	Augusta
E. N. Maner.....	Savannah
Francis B. Blackmar.....	Columbus
H. M. Moore.....	Thomasville
J. R. Childs.....	Atlanta
Herschel C. Crawford.....	Atlanta
I. W. Irvin.....	Albany

Syphilis

Harold P. McDonald, Chairman.....	Atlanta
J. T. McCall.....	Rome
Roy R. Kracke.....	Emory University
J. Z. McDaniel.....	Augusta
Willis P. Jordan.....	Columbus
Wallace Bazemore.....	Macon
John C. Keaton.....	Albany
Harry Righton.....	Savannah
R. F. Wheat.....	Bainbridge
L. W. Pierce.....	Waycross
Hartwell Joiner.....	Gainesville
R. H. McDonald.....	Newnan
P. L. Hilsman.....	Albany

Industrial Health

Jno. W. Simmons, Chairman.....	Brunswick
Thos. P. Goodwyn.....	Atlanta
B. H. Minchew.....	Waycross
C. W. Roberts.....	Atlanta
L. M. Petrie.....	Atlanta
C. F. Holton.....	Savannah
W. W. Battey.....	Augusta
W. W. Chrisman.....	Macon
A. N. Dykes.....	Columbus
J. P. Tye.....	Albany
R. E. Newberry.....	Atlanta

Clinical Pathology

A. J. Ayers, Chairman.....	Atlanta
Roy R. Kracke.....	Emory University
Walter W. Daniel.....	Atlanta
A. R. Rozar.....	Macon
D. R. Venable.....	Columbus
R. Lee Rogers.....	Gainesville
Alex R. Freeman.....	Albany

ADVISORY

Student Loan Fund

Mrs. H. G. Banister, Chairman.....	Ala
G. Lombard Kelly.....	Augusta
R. H. Oppenheimer.....	Atlanta

Tuberculosis

C. C. Aven, Chairman.....	Atlanta
Champneys H. Holmes.....	Atlanta
Enoch Callaway.....	LaGrange
H. C. Schenck.....	Atlanta
C. D. Whelchel.....	Gainesville
W. C. Cook.....	Columbus
R. C. McGahee.....	Augusta
E. F. Wahl.....	Thomasville
R. V. Martin.....	Savannah
C. M. Sharp.....	Alto
H. C. Atkinson.....	Macon
Warren Gilbert.....	Rome

Scientific Exhibit

W. F. Hamilton, Co-Chairman.....	Augusta
Jos. C. Massee, Co-Chairman.....	Atlanta
J. E. Scarborough, Co-Chairman.....	Emory University
Robert Drane.....	Savannah
Lee Howard.....	Savannah
B. E. Collins.....	Waycross
Joseph Yampolsky.....	Atlanta
Wm. F. Lake.....	Atlanta
Edgar R. Pund.....	Augusta
John E. Walker.....	Columbus
Helen W. Bellhouse.....	Thomasville
R. N. Johnson.....	Rome
W. S. Cook.....	Albany
J. H. Kite.....	Atlanta

ADVISORY

Woman's Auxiliary

Jas. N. Brawner, Chairman.....	Atlanta
Eustace A. Allen.....	Atlanta
C. D. Bowdoin.....	Atlanta
Olin S. Weaver.....	Macon
A. S. Bacon.....	Albany
J. Lon King.....	Macon

Medical Preparedness

W. A. Selman, Chairman.....	Atlanta
Jno. B. Fitts.....	Atlanta
Edgar D. Shanks, Secretary-Treasurer.....	Atlanta

Post-Graduate Study

G. Lombard Kelly, Chairman.....	Augusta
Russell H. Oppenheimer.....	Emory University
Richard Torpin.....	Augusta
Olin S. Cofer.....	Atlanta
H. C. Sauls.....	Atlanta
Roy A. Hill.....	Thomasville
W. F. Reavis.....	Waycross
S. P. Kenyon.....	Dawson
R. D. McKenzie.....	Albany

Georgia State Medical Association (Negro)

M. T. Harrison, Chairman.....	Atlanta
W. E. Storey.....	Columbus
R. C. Maddox.....	Rome
J. F. Hanson.....	Macon
H. H. Allen.....	Decatur

Pediatrics

W. W. Anderson, Chairman.....	Atlanta
A. J. Waring.....	Savannah
Frank Schley.....	Columbus
M. M. McCord.....	Rome

Appendicitis

T. C. Davison, Chairman.....	Atlanta
J. K. Quattlebaum.....	Savannah
Charley K. Wall.....	Thomasville
J. C. Patterson.....	Cuthbert
Fred F. Rudder.....	Atlanta
F. B. Rawlings.....	Sandersville
B. Lester Harbin.....	Rome
Kenneth McCullough.....	Waycross
R. L. Rogers.....	Gainesville
S. D. Brown.....	Royston
Enoch Callaway.....	LaGrange
W. M. Field.....	Albany
S. E. Sanchez.....	Barwick

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GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

GEORGIA CANCER CONTROL PROGRAM

The Georgia Cancer Control Program has been in operation a little more than five years. The first case to be approved under the state-aid program reported for treatment in November, 1937. Since that time the program has functioned continuously with the exception of the latter half of 1939 when funds were not available.

Increasing interest in the program has been shown by the steady rise in the number of patients approved for state-aid. From 1937 through 1941 the number of applicants increased each year by about 20 per cent over the preceding year. In 1942 a slight decrease was observed, however, and it seems likely that for the duration of the war no further increase in the number of applicants will be noted.

The number of patients treated thus far under the state-aid program is impressive. From November, 1937, to December, 1942, a total of 7,817 patients reported to the twelve state-aid clinics for diagnosis and treatment. Of this number, 4,866 or 62.2 per cent were found to have cancer.

The success of a cancer program, however, is measured only in part by the number of patients treated. Of equal importance is the curability of the lesion at the time the patient reports for treatment. This depends largely upon how early the cancer gives rise to recognizable symptoms and upon the promptness with which the patient reports for examination when such symptoms are first noted.

Fortunately, a rather high proportion of cancers develop in easily accessible sites and give rise to symptoms which the patient may readily observe. This may be shown by a study of the malignant cases reporting to the state-aid clinics during the period 1937-1942. The sites chiefly affected and the number of lesions observed are shown in the following table:

<i>Site of Lesion</i>	<i>Number</i>	<i>Per Cent of Total</i>
Skin	2313	47.3
Buccal Cavity	430	8.8
Breast	512	10.5
Uterus	914	18.8
All others	697	14.3

It will be observed that cancers of the skin, buccal cavity, breast and uterus comprise approximately 85 per cent of all malignant cases reporting to the clinics. Most of these cancers give rise to recognizable symptoms during the early stages of growth. If the patient is informed as to the nature of these early symptoms and reports promptly for diagnosis and treatment, the outlook for cure is favorable.

Delay on the part of the cancer patient in seek-

ing medical advice is almost a universal phenomenon. Few patients report for examination within the first week or two after symptoms are noted. Causes associated with delay are numerous and vary somewhat in different patients. Some of the more prominent causes are fear, lack of knowledge with respect to early symptoms and the belief that cancer is incurable. Educational effort directed at the laity must seek to provide information in regard to early symptoms and to change the fatalistic attitude of the people with respect to cancer.

Among patients reporting to the state-aid clinics, a history of delay in seeking medical advice is commonly obtained. In most of the cases seen during the first five years of the program, a period of several months or more had elapsed between the date of first symptoms and the date of reporting to the clinic. The experience of the state-aid clinics in this respect has been similar to that observed elsewhere.

An estimate of the frequency and seriousness of delay in reporting for treatment may be obtained through classification of cases as to the extent of the lesion at the time of first examination. This may readily be done, for example, in dealing with carcinomas of the breast. Cases of breast cancer reporting to the state-aid clinics during the period 1937-42 have been grouped according to whether the lesion: 1) was localized in the breast, 2) had given rise to regional metastases but was still operable, or 3) was inoperable. The frequency with which breast cases were found to fall in each of the above groups is shown in the following table:

Group 1	25 per cent
Group 2	34 per cent
Group 3	41 per cent

The experience of many clinics indicates that with adequate treatment about 70-75 per cent of group 1 cases of breast cancer may expect to survive at least five years. Among group 2 cases the probability of cure is only about 20 per cent. Group 3 cases are no longer curable although treatment may prolong the life of the patient and make her more comfortable.

The above figures clearly show the need for lay education in a cancer program. Lacking information with respect to cancer, the patient, in most instances, delays seeking medical advice until the most favorable time for treatment has passed. In meeting this problem through education, however, a long range viewpoint is needed. Continuous effort over a long period of time will be necessary. The problem with respect to state-aid patients is especially difficult. These

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GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1943-44

President—Frieda Grefe, R.N., Savannah.

First Vice-President—Sister Cornile, Atlanta.

Second Vice-President—Mrs. Mae M. Jones, Milledgeville.

Secretary—Mrs. Esther Watts, Columbus.

Treasurer—Jane Van De Vrede, Atlanta.

Executive Secretary—Durice Dickerson, R.N., Headquarters, 131 Forrest Ave., N. E., Atlanta; Tel. WA. 8911

President—Georgia League of Nursing Education, Ruth Babin, Atlanta.

President—Georgia State Organization of Public Health Nursing, Vera Mingledorff, Griffin.

Chairman, Private Duty Section, G.S.N.A.—Mrs. Mildred Pryse, Atlanta.

BOLTON BILL PASSED

The Bolton Bill, signed by President Roosevelt on June 15, 1943, is now an enabling act, authorizing expenditure of Federal funds for:

1. Refresher courses for nurses who have been inactive in nursing.
2. Postgraduate study in special fields of nursing.
3. Basic training of student nurses.

Refresher Courses

Funds for refresher courses will be available as before, to institutions including hospitals without schools of nursing offering such courses.

Postgraduate Study

Payment of funds to institutions for post-graduate courses will be restricted to tuition and maintenance of students. Funds are not provided for such other items as faculty salaries, or for special or additional teaching facilities.

"Basic Training"

Payment of funds may be authorized for:

1. Reasonable tuition and fees for *all* students who wish to participate in the program;
2. Uniforms, indoor and outdoor, and special insignia for students;
3. Monthly stipends for students as follows:
 - a. First nine months—\$15
Hospitals will also be reimbursed for the maintenance of students during this period, provided the value of service the student may render during these 9 months does not exceed the cost of maintenance.
 - b. Next 15 to 21 months—\$20
 - c. Last 6 to 12 months—\$30

All nursing schools may participate in this plan, provided they meet requirements specified in the Act, and others which may be set up by regulations of the Surgeon General of the U. S. Public Health Service, who is responsible for the administration of the plan.

An appropriation sufficient to inaugurate the program has been approved by Congress.

U. S. Cadet Nurse Corps

Student nurses participating in the plan for "basic training" set up by the Bolton Act, will be known as members of the United States Cadet Nurse Corps, according to information released

by the Surgeon General of the U. S. P. H. S. June 26, 1943.

Cadet nurses will complete the program of instruction in nursing schools in a maximum of 30 months, and will be assigned to special service (a form of clinical experience) in a military, non-military governmental or civilian hospital or other agency for six months thereafter. They also must agree to stay in essential nursing work for the duration, but this does not necessarily mean military service.

Director of the Division of Nurse Education, U. S. P. H. S., which will direct the program of the U. S. Cadet Nurse Corps is Lucile Petry, who has been granted a leave of absence from the position of Dean of the Cornell University School of Nursing. Associate Director is Mrs. Eugenia Kennedy Spaulding. Both Miss Petry and Mrs. Spaulding have been serving as consultants on the nursing education staff of the U. S. P. H. S. for the past two years.

An advisory committee, made up of representatives of the nursing, medical hospital and lay educational fields, will work closely with the Surgeon General in formulating policies and developing the program. Members of the Committee are:

1. Marion G. Howell, Dean, Frances Payne Bolton School of Nursing, Western Reserve University;
2. Sister Helen Jarrell, Dean, Loyola University School of Nursing;
3. Isabel M. Stewart, Director, Division of Nursing Education, Teachers College, Columbia University;
4. Margaret Tracey, Director, School of Nursing, University of California;
5. Anna D. Wolf, Director, Johns Hopkins Hospital School of Nursing;
6. Dr. Oliver Carmichael, President, Vanderbilt University;
7. James Hamilton, Director, New Haven Hospital;
8. Dr. Hymun Leo Marshall, President, University of Utah, and Professor of Public Health;
9. Reverend Alphonse Schwitalla, Dean, St. Louis University School of Medicine.

(Copied from *Professional Nursing*, July, 1943)

WOMAN'S AUXILIARY

President—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.

President-Elect—Mrs. W. T. Randolph, Winder.

First Vice-President—Mrs. Ralph Fowler, Marietta.

Second Vice-President—Mrs. L. W. Williams, 135 East 45th St., Savannah.

Third Vice-President—Mrs. Richard Binion, Milledgeville.

Recording Secretary—Mrs. Chas. Usher, 6 East Liberty St., Savannah.

: OFFICERS 1943-44

Corresponding Secretary—Mrs. H. H. Askew, 1329 Springdale Road, Atlanta.

Treasurer—Mrs. Lucius N. Todd, Rural Delivery No. 2, Augusta.

Historian—Mrs. W. W. Puett, Norcross.

Parliamentarian—Mrs. Lee Howard, 625 East 44th St., Savannah.

Press and Publicity—Mrs. J. Harry Rogers, 134 Huntington Road, N.W., Atlanta.

NEW CHAIRMEN

Mrs. Olin S. Cofer, of Atlanta, president of the Woman's Auxiliary to the Medical Association of Georgia, announces the list of officers and chairmen who will serve with her during the year and suggests that members clip this list for their files.

Officers are: President, Mrs. Olin S. Cofer, 948 Lullwater road, N.E., Atlanta; president-elect and chairman of organization, Mrs. W. T. Randolph, Winder; first vice-president and chairman of health education, Mrs. Ralph Fowler, 303 McDonald street, Marietta; second vice-president and chairman of Hygeia, Mrs. L. W. Williams, 135 E. 45th street, Savannah; third vice-president and scrapbook chairman, Mrs. Richard Binion, 310 W. Green street, Milledgeville; recording secretary, Mrs. Charles Usher, 6 E. Liberty street, Savannah; corresponding secretary, Mrs. Hulett H. Askew, 1329 Springdale road, N.E., Atlanta; treasurer, Mrs. Lucius M. Todd, M. R. 37, Forest Hills, Augusta; historian, Mrs. W. W. Puett, Norcross; and parliamentarian, Mrs. Lee Howard, 625 E. 44th street, Savannah.

Other chairmen are public relations, Mrs. Wallace Bazemore, 127 Beverly place, Macon; visual education, Mrs. Fred B. Rawlings, Sandersville; legislation, Mrs. John C. Blalock, 734 W. Wesley road, Atlanta; press and publicity, Mrs. J. Harry Rogers, 1325 Peachtree St., N. E., Atlanta; Doctor's Day, Mrs. Leonard R. Massengale, Lumpkin; Research in Romance of Medicine, Mrs. Cleveland Thompson, Millen; Student Loan Fund, Mrs. H. G. Banister, Ila; Jane Todd Crawford Memorial, Mrs. Claud C. Mitchell, Smyrna; revisions, Mrs. Edwin Allen, Milledgeville; archives, Mrs. Eustace Allen, 18 Collier road, N.E., Atlanta; exhibits, Mrs. E. N. Gleaton, 32 E. 45th street, Savannah; the Mrs. James N. Brawner Trophy, Mrs. J. Lon King, 223 Buford place, Macon; the Bulletin, Mrs. Stacy Howell, 2641 Acorn avenue, N.E., Atlanta; and War Participation, Mrs. James N. Brawner, 2300 Peachtree road, Atlanta.

Members of the Advisory Council from the Medical Association of Georgia include Dr. James N. Brawner, Atlanta, chairman; Dr. Olin S. Cofer, Dr. Eustace Allen and Dr. C. D. Bowdoin, all of Atlanta; Dr. J. Lon King, Macon; and Dr. A. S. Bacon, Albany.

MRS. ALLEN HONORED

Georgia Auxiliary members have learned with pride of the election of one of their most capable and beloved members, Mrs. Eustace Allen, of Atlanta, as first vice-president and chairman of organization of the Woman's Auxiliary to the American Medical Association. Mrs. Allen, who is a former president of the Woman's Auxiliary to the Medical Association of Georgia, has served for the past two years as chairman of revisions for the national group and prior to that was third vice-president. As in the case of other busy women, Mrs. Allen finds time for defense activities these days and serves most efficiently as instructor of Nurses' Aide for the Atlanta Chapter of the American Red Cross. The State Auxiliary never had a more capable president than Mrs. Allen and members are sure the same efficiency and untiring effort will bring excellent results to her organization work for the national group.

Mrs. Allen's election took place at the recent executive board meeting, held in Chicago. Due to the transportation problem the regular convention was called off this year, the board meeting being held instead, with Mrs. Frank Haggard, of San Antonio, widely known in Georgia, presiding as national president. Mrs. Olin S. Cofer, president of the Georgia group, presented the report from this State. Mrs. Edgar H. Greene, Mrs. James N. Brawner and Mrs. H. Cliff Sauls presented the program of the Doctors' Aide Corps of the Woman's Auxiliary to the Fulton County Medical Society to the national group, which enthusiastically approved it.

PUBLICITY NOTES

Mrs. J. Harry Rogers, chairman of press and publicity, urges Auxiliaries to send reports of their activity to her at 134 Huntington road, Atlanta. No matter how much publicity the Auxiliaries have in other channels the only one that counts toward Auxiliary awards is that which is sent for publication in official Auxiliary organs. This news should include reports of all regular meetings held by the Auxiliaries, names of officers, any important work undertaken by the group, programs at meetings, etc. The news should reach the chairman by the 15th of the month preceding publication. All news is published eventually but sometimes, due to limited amount of space, it is not published immediately after receipt. After Sept. 1, Mrs. Rogers' address will be 1325 Peachtree St., N. E., Atlanta.

BALDWIN COUNTY

The Woman's Auxiliary to the Baldwin County Medical Society met recently at the home of Mrs. L. P. Longino in Milledgeville, with Mrs. John Wiley as co-hostess. Mrs. Sam Anderson, newly elected president, was in charge of the meeting, at which 16 members were present. The Constitution was revised and the By-Laws read and adopted. Delegates to the recent state convention in Atlanta reported on the meeting, at which Mrs. Richard Binion, former president of Milledgeville Auxiliary, was elected third vice-president and scrapbook chairman. The members of the Auxiliary displayed with pride the Brawner Cup, which they won at the convention for outstanding activity and which was also won by Baldwin County in 1939 and 1941. Honorable mention was given the Auxiliary this year for the exhibit and the scrapbook. These will be placed in one of the show windows in the business section for exhibition purposes. The Auxiliary agreed to continue to serve first aid courses, Nurses' Aid training, other Red Cross activities and conservation of health.

FULTON COUNTY

Mrs. William Milas Dunn was installed as president of the Woman's Auxiliary to the Fulton County Medical Society at a recent meeting held at the Academy of Medicine in Atlanta. Officers who will serve with Mrs. Dunn include Mrs. John W. Turner, president-elect, to take office next June; Mrs. J. Harry Rogers, first vice-president; Mrs. Shelley Davis, second vice-president; Mrs. J. D. Nall, third vice-president; Mrs. S. L. Morris, Jr., treasurer; Mrs. Charles H. Daniel, recording secretary; Mrs. Ernest Colvin, corresponding secretary; Mrs. Frank K. Boland, historian; Mrs. D. R. Longino, parliamentarian; and Mrs. Stacy Howell, auditor.

Mrs. Edgar H. Greene, who has served the Auxiliary most capably as president during the past year, gave a report of the work accomplished, chief achievement being the formation of the Doctors' Aide Corps. Mrs. H. Cliff Sauls reported on the recent convention of the Woman's Auxiliary to the Medical Association of Georgia, which was held in Atlanta. It was announced that the sum realized from the sale of pins through the Navy Hospital Relief Fund at the convention would be used to equip five medical kits to be placed on coast guard cutters, these kits to be marked "Gift of the Doctors' Aids Corps of Atlanta."

GEORGIA DEPT. OF PUBLIC HEALTH

Georgia Cancer Control Program

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patients come from the lowest economic group and about 80 per cent of them live on farms or in small towns. Nevertheless, they must be reached through educational measures if the splendid facilities provided at the treatment centers are to be used to best advantage.

W. J. MURPHY, M.D., *Director*
Cancer Control Service.

OFFICERS AND COMMITTEES, 1943-44

(Continued from page 283)

Awards

Wm. R. Dancy, Chairman.....	Savannah
T. S. Gatewood.....	Americus
Mather M. McCord.....	Rome
Ralph H. Chaney.....	Augusta
W. F. Reavis.....	Waycross
T. C. Williams.....	Valdosta

Maternal Mortality and Infant Deaths

H. F. Sharpley, Jr., Chairman.....	Savannah
C. B. Upshaw.....	Atlanta
Richard Torpin.....	Augusta
I. M. Lucas.....	Albany
David M. Wolfe.....	Atlanta

FRATERNAL DELEGATES TO OTHER STATE MEETINGS

Alabama: D. S. Reese, Carrollton; Mercer Blanchard, Columbus.

Florida: W. W. Anderson, Atlanta; Grady N. Coker, Canton, and Hal. M. Davison, Atlanta.

North Carolina: Allen H. Bunce, Atlanta, and Ralph M. Goss, Athens.

South Carolina: G. Lombard Kelly, Augusta, and Stewart D. Brown, Royston.

Tennessee: Z. V. Johnston, Calhoun, and J. T. McCall, Rome.

NEWS ITEMS

The Fulton County Medical Society Directory, published July 1, presents a vast store of information valuable for the medical profession and laymen. It carries a wide variety of advertisements including local and national advertisers. In addition to the names and addresses of all private practitioners, it has the names of members in military service and other associate members. The President of the Society, Dr. George W. Fuller, fills his usual space with the evaluation of the most active members, that of less active members, and of those almost totally inactive other than the payment of dues. The management deserves the commendation of its officers and members.

The Fulton County Medical Society met on July 15 at the Academy of Medicine, Atlanta. Dr. Bernard L. Shackleford spoke on "Review of the Finney Pyloroplasty" at Georgia Baptist Hospital. Discussed by Dr. Ben H. Clifton and Dr. T. C. Davison. Contributors to this issue of The Bulletin were: Dr. George W. Fuller, president; Dr. Wm. A. Smith.

Dr. W. P. Coffee, Fitzgerald, has just completed three months' post-graduate study of diseases of the eye, ear, nose and throat at the New York Polyclinic Medical School and Hospital, New York City. He has resumed practice at Fitzgerald.

The Medical College of the State of South Carolina, Charleston, gave a two-day "Refresher Course" for practitioners at the request of its Alumni last November. Another two-day "Refresher Course" will be given by the College on November 3-4, 1943. Dr. Virgil P. Sydenstricker, Augusta, professor of medicine, University of Georgia School of Medicine, will be one of the guest speakers.

Oglethorpe University School of Medicine held an open meeting in the Pompeian Dining Room of the Biltmore Hotel, Atlanta, July 20. Representatives of various medical organizations, clinical faculty, Advisory Committee and other friends were present. Dinner was served.

The staff meeting of the Department of Medicine, Grady Hospital, Atlanta, met on July 18. Reports of cases discussed were: "Spinal Arachnoiditis," "Polycythemia Vera," and "Eosinophilia with Splenomegaly."

Dr. Eugenia C. Jones announces her association with Dr. Mason I. Lowance in the practice of internal medicine and allergy, Suite 215 Doctors Building, Atlanta.

Dr. Edward S. Wright announces the removal of his offices to 410 Medical Arts Building, Atlanta. His practice will be limited to otorhinolaryngology and bronchoscopy.

The Southern Pediatric Seminar was held at Saluda, N. C., in July. The Georgia physicians who attended were: J. T. Arnold, Parrott; Geo. C. Brooke, Canton; J. G. Brantley, Wrightsville; R. R. Bridges, Leary; W. B. Buckner, Albany; F. M. Bruce, Homerville; J. C. Brim, Pelham; J. C. Collins, Collins; T. H. Chesnut, Moultrie; C. H. Dickens, Madison; H. L. Earl, Sparta; C. F. Engelking, Dalton; M. G. Frich, Hinesville; W. M. Flanagan, Waycross; P. M. Golley, LaFayette; T. F. Guffin, East Point; C. W. Harwell, Cordele; D. B. Harrell, Tifton; B. L. Helton, Sandersville; C. B. Lord, Jefferson; W. R. Lowe, Midville; W. E. Lipscomb, Cumming; L. L. Lundy, Boston; R. R. McCollum, Kingsland; H. C. McCrackin, Baxley; W. C. McCarver, Vidette; W. R. McCoy, Folkston; J. V. Rogers, Cairo; Herbert F. Readling, Thomasville; S. T. R. Revell, Louisville; W. R. Richards, Greensboro; H. P. Rankin, Cairo; W. K. Smith, Pembroke; C. K. Sharp, Arlington; J. C. Tidmore, Dawson; C. W. Twitty, Newton; T. O. Vinson, Griffin; R. F. Wheat, Bainbridge; C. M. Whitehead, LaGrange. Class 1943 officers elected were: Dr. H. L. Earl, Sparta, president; Dr. J. T. Arnold, Parrott, vice-president; and Dr. G. L. Donnelly, Valdese, N. C., secretary.

Harvard University Medical School, Boston, Mass., includes legal medicine in its courses. Its Graduate Department has planned both a condensed one-day conference and a more extensive seminar.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, August 5. Dr. Calvin B. Stewart read a paper on "Neoplasms"; discussed by Dr. J. L. Campbell, Dr. J. Elliott Scarborough and Dr. Wm. Perrin Nicolson.

Among the writers who contributed articles to the August 5 issue of The Bulletin of the Fulton County Medical Society were Dr. George W. Fuller, president of the society, and Dr. Calhoun McDougall.

The staff of the Department of Medicine of Grady Hospital, Atlanta, met on August 1. Titles of reports of cases were: "Treatment of the Diabetic Patient," "Gasoline Pneumonia" and "Typhus Fever at Grady Hospital."

The Bibb County Medical Society met on the roof of the Doctors Building, Macon, August 3. Dr. Chas H. Richardson spoke on "Goiter."

The doctors and dentists of Waycross entertained members of the Ware County Medical Society and other guests at the Whirlpool at a fish fry on August 5.

OBITUARY

Dr. Virgil O. Harvard, Arabi; member; Southern Medical College, Atlanta, 1897; aged 69; died June 26, 1943, at his home. Dr. Harvard was recognized as a leader in his profession. He was a peace loving, charitable citizen. As an indication of his professional standing, he served on the Council of the Medical Association of Georgia from 1912 to 1926; chairman of the Council, 1922-26; president of the Association, 1926-27. Surviving him are his widow and three sons, Dr. S. C. Harvard, Brooksville, Florida; V. W. Harvard, Atlanta; and P. H. Harvard, Arabi.

Dr. Edward Hershell Kenimer, Bishop; Emory University School of Medicine, 1897; aged 72; died on July 9, 1943, at his home. He was a native of Cleveland, Ga. He began the practice of medicine at Bishop and endeared himself to the people of Bishop and Oconee County. Dr. Kenimer was a member of the Bishop Methodist Church. Surviving him are his widow, two sons, H. M. and Victor Kenimer, both of Bishop. Rev. Henry Walker and Rev. Loyd Jackson officiated at the funeral services conducted at the Bishop Methodist Church. Burial was in the Bishop Cemetery.

Dr. Charles Holder McArthur, Rome; member; Chicago College of Medicine and Surgery, Chicago, 1917; aged 48; died August 2, 1943, in a local hospital. He was a native of Atlanta. Dr. McArthur served as an intern in Atlanta, Chicago and St. Louis hospitals. After he practiced for a number of years, he studied in Europe and took special training, then served as house physician with the Cerro de Pasco Hospital in Lima, Peru; later he began practice in Rome and had been on the staff of the McCall Hospital, Rome. He was active in civic and professional organizations; member of the Floyd County Medical Society, American Medical Association and Masonic Lodge. Surviving him are his widow, mother, Mrs. L. S. McArthur, Curryville; one brother, L. A. McArthur, Bartow County; two sisters, Mrs. Richard F. Barker, Rockmart, and Miss Elise McArthur, Curryville. Funeral services were conducted at a local funeral home. Burial was in West Union Cemetery.

Dr. Alexander J. Gordon, Jesup; member; University of Georgia School of Medicine, Augusta, 1888; aged 81; died on June 8, 1943. He was born at Ohoopie in Tattnall County. Dr. Gordon began the practice of medicine at Waynesville and after a few years moved to Jesup where he practiced until his death. His practice was limited to pediatrics. He was easy to understand and adapted himself to the means of the common people. Dr. Gordon

held large farming interests and introduced Hereford cattle into Wayne County. In addition to the practice of medicine, he was active in civic and religious affairs. He served on the city council of Jesup for several terms; was a member of the Wayne County Medical Society for many years, member of the F. & A. M., Lodge No. 112, medical examiner for the Selective Service Board and member of the Jesup Presbyterian Church. Surviving him are his widow, three daughters, Mrs. L. S. Tharin, Albany; and Misses Marjorie and Georgia Gordon, all of Jesup; one son, A. J. Gordon, Jr., with the United States Coast Guard. Rev. John R. Smith, Winder; Rev. H. C. Griffin, Jesup, and Rev. A. M. McCool, Hoboken, officiated at the funeral services conducted at the Jesup Presbyterian Church. Burial was in the Jesup Cemetery.

COMMUNICATION

To the Editor:

You may have read in your Atlanta papers of the untimely death of my oldest son and namesake, Lt. Douglas R. Venable, Jr., killed in action over Emden, Germany, May 15, in the terrific battle between his fortress, Old Bill, and some twenty Focke-Wolfs. He was killed instantly when a cannon shell blew off the entire nose of their plane. He had previously been awarded the Air Medal and Oak Leaf Cluster for bravery displayed in the twenty previous raids in which he had participated. He quit Tulane University where he was in his last premed year to enter training as a cadet in the Army Air Corps right after Pearl Harbor, much against my wishes and advice. I thought he was doing his full duty where he was, in view of the shortage of doctors. If you think fit, I would like for my friends among the doctors over the State to know of our irreparable loss. He has been awarded posthumously, in addition to his two previous decorations, the Silver Aviation Star.

D. R. VENABLE, M.D.

Columbus, Ga.
July 26, 1943.

THE PHYSICIAN'S BOOKSHELF

Rehabilitation of the War Injured, a new book of 684 pages published by the Philosophical Library, New York City, and edited by William Brown Doherty, M.D., and Dagobert D. Runes, Ph.D., is available now for \$10.

This book is beautifully illustrated and its reading matter covers a broad field of medicine and surgery, such as neurology and psychiatry; reconstructive and plastic surgery; orthopedics; physiotherapy; occupational therapy and vocational guidance; legal aspects of rehabilitation, and numerous miscellaneous items, including discussion of vascular and neurologic lesions in survivors of shipwreck. Discussion of each subject is by one specially qualified in his or her work, all of whom are well known in the medical and surgical world, therefore this book should be of inestimable value to those persons who desire to refresh their minds regarding what is best to do for rehabilitation of the war injured.

New books published under the auspices of The Commonwealth Fund include the following:

Air-Borne Infection by Dwight O'Hara, M.D., Professor of Preventive Medicine, Tufts Medical School, Boston; priced at \$1.50. This small book of 104 pages makes interesting reading and is a challenge to the medical profession to continue its efforts to solve so-called air-borne infections.

Brucellosis in Man and Animals by I. Forrest Huddleston, D.V.M., M.S., Ph.D., Research Professor in Bacteriology, Michigan State College, priced at \$3.50, presents in revised form full discussion of what is known today about this important subject.

Clinical Significance of the Blood in Tuberculosis by Gulli Lindh Muller, M.D., Pathologist and Director of Laboratory, New England Hospital for Women and Children, Boston; priced at \$3.50. Authorities who have read this book say it is a dependable treatise on the significance of changes in the blood in the management of tuberculous patients.

Handbook of Tropical Medicine, by Alfred C. Reed, M.D., Associate Professor of Medicine, Stanford University School of Medicine, and J. C. Geiger, M.D., Director of Public Health, San Francisco, priced at \$1.50 by Stanford University Press, contains in its 188 pages much information which will be found worthwhile by both the student and practitioner.

MEDICAL OFFICERS NEEDED FOR FEDERAL CIVILIAN WAR SERVICE

The critical shortage of physicians to engage in vital war work in the civilian branches of the Government continues. The great need for these men resulted in the announcing of a liberalized civil-service examination for Medical Officers in 1941. The Civil Service Commission has just revised and re-announced this examination.

The twenty optional branches under which doctors may apply range from General Practice to Aviation Medicine. Those appointed will perform professional duties as doctors of medicine in active practice in hospitals, in dispensaries, or in the field or in rural areas; or in bureaus of the Government such as the Veterans Administration, Civil Aeronautics Administration, Public Health Service, and Food and Drug Administration. Doctors will also be used in industrial establishments under direction of the War Department.

Applicants for all grades must have received the degree of M.D. from an accredited medical school. Applicants for the Senior Medical Officer grade (\$5,228 a year) must have had at least 5 years of appropriate medical experience; for the Medical Officer grade (\$4,428 a year), 3 years of experience in addition to a required internship. The salaries quoted include overtime pay.

There are no written tests and no age limits. Persons now using their highest skills in war work should not apply for these positions. Appointments in Federal positions are made in accordance with War Manpower policies and employment stabilization plans. Before a definite offer of appointment is made, eligibles are

cleared through the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians, of the War Manpower Commission.

Persons rated eligible on the Medical Officer examination of 1941 need not file applications again unless they consider that they now possess qualifications for eligibility in a higher grade or different option.

Further information and application forms may be obtained at first- and second-class post offices, Civil Service Regional Offices, and the Commission in Washington, D. C.

ANY PHYSICIAN MAY EXHIBIT "WHEN BOBBY GOES TO SCHOOL" TO THE PUBLIC

Under the rules laid down by the American Academy of Pediatrics, their educational-to-the public film, "When Bobby Goes to School," may be exhibited to the public by any licensed physician in the United States.

All that is required is that he obtain the endorsement by any officer of his county medical society. Endorsement blanks for this purpose may be obtained on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

Such endorsement, however, is not required for showings by licensed physicians to medical groups for the purpose of familiarizing them with the message of the film in advance of public showings in the community.

"When Bobby Goes to School" is a 16-mm. sound film, free from advertising, dealing with the health appraisal of the school child, and may be borrowed without charge or obligation on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

SQUIBB ADDS PROGESTERONE IN OIL TO HORMONE LINE

For the treatment of certain cases of habitual or threatened abortion, dysmenorrhea and functional bleeding, E. R. Squibb & Sons, New York, have added Progesterone in Oil to their extensive line of hormone products. This is a sterile preparation of pure crystalline progesterone in corn oil for intramuscular administration, standardized in terms of International units. One I. U. is the progestational activity of 1 mg. of the crystalline standard.

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taining sufficient material for the withdrawal and administration of 1 cc. It is available in the following sizes:

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1-cc. ampuls containing 2.0 mg. (2 I. U.) Progesterone, in boxes of 3, 12 and 25 ampuls.

1-cc. ampuls containing 5.0 mg. (5 I. U.) Progesterone, in boxes of 3 and 12 ampuls.

TETANUS IMMUNIZATION OF MILITARY PERSONNEL

All military personnel on induction are being immunized against tetanus either, as in the Army, by three injections of fluid toxoid, or as in the Navy and Marine Corps, by two injections of alum precipitated toxoid (New Eng. J. Med., 227:162, 1942). In addition a small or stimulating dose is injected prior to departure for a theater of operations and an emergency dose is given to those wounded or burned in battle or incurring other wounds likely to be contaminated with *Clostridium tetani*. According to recent report (Am. J. Pub. Health, 33:53, 1943) since June, 1941, when the present tetanus immunization program was adopted, there have been but four cases reported from the entire Army, and none of these was in immunized individuals. Although perhaps too early in the present war to draw conclusions, it is of particular interest that no cases of tetanus have been reported from battle casualties.

For civilian use, especially in children, it is of decided advantage to accomplish simultaneous immunization against tetanus and diphtheria. Combined Diphtheria Toxoid-Tetanus Toxoid, Alum Precipitated, Lilly, is designed for prophylaxis only, affords effective immunity against both diseases, and avoids risk of serum sensitization which may follow use of an antitoxin.

CHANGE IN CASEC MEASUREMENTS

Casec now measures six *packed* level tablespoonfuls instead of 12 level tablespoonfuls, as formerly, so that directions to the patient should be amended accordingly. Casec is indicated in colic and loose stools in breast-fed infants, and in fermentative diarrhea, malnutrition, celiac disease and for premature infants. Mead Johnson & Company, Evansville, Indiana, U. S. A.



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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

VOL. XXXII

Atlanta, Georgia, September, 1943

Number 9

MESSAGE

REAR ADMIRAL ROSS T. MCINTIRE,
M.C., U. S. N.

*The Surgeon General of the Navy
Washington, D. C.*

Conveyed to the Members of the Medical
Association of Georgia
by

REAR ADMIRAL LUTHER SHELDON, JR.,
M.C., U. S. N.

*Assistant Chief of the Bureau of
Medicine and Surgery
Washington, D. C.*

I am asking Admiral Sheldon to express my sincere regret at not being able to be present at the Ninety-Fourth Annual Session of the Medical Association of Georgia, as I had looked forward to renewing my friendship with many of you.

I want to express my appreciation to the members of the medical profession of Georgia for the fine cooperation they have given, and are giving, to the Navy. You are to be complimented on having the present President of the American College of Physicians, and the new President of the American Medical Association, as your representative. The Navy is very proud of him as he is one of its Honorary Consultants and as such is available for counsel at any time. He will play a very great part in the planning of our post-war health and medical program.

I had hoped to talk to you about this today, but as that is impossible I want to leave this thought with you. During the active period of the war you can safely leave to the armed forces the job of caring for the men in the services. You can rest assured that everything will be done to re-

turn them to civil life in much better physical condition than when they joined the services. Our wounded are receiving prompt attention and the results are astonishingly good. So it is to the program of rehabilitation that we must give serious thought. In addition to that a sound program that will provide better medical and hospital care for every citizen in the nation must be thought out and presented by the medical profession to our government. It is my considered thought that to allow any other group to do this would be more than unfortunate.

I know that among you are many men who have had great experience in all phases of the practice of medicine and I hope you will give much thought to this problem in the coming weeks.

MEDICAL ACHIEVEMENTS IN THE PRESENT WAR

REAR ADMIRAL LUTHER SHELDON, JR.
Assistant Chief, Bureau of Medicine and
Surgery, Navy Department
Washington, D. C.

When the Japanese struck at Pearl Harbor on the 7th of December, 1941, in spite of the unbelief of many that such a thing could happen, the Medical Department of the Navy was not among these. Steps, based upon the best knowledge and opinion available had been taken to meet the medical needs of such an eventuality. Our hospital at Pearl Harbor had been staffed with officers, nurses, and hospital corpsmen prepared to meet any emergency considered likely to arise. They had been supplied with medicine and surgical appliances which it was thought might be needed. In addition, the foresight of the Surgeon General was

The Calhoun Lecture presented at the Ninety-Fourth Annual Session of the Medical Association of Georgia, Atlanta, May 12, 1943 by Rear Admiral Luther Sheldon, Jr., Medical Corps, United States Navy, Washington, D. C., for the Surgeon General of the Navy.

such that he had placed one of our mobile hospitals, of which I shall have more to say later, on an elevation not far from the Navy Yard. This preparation and foresight saved many lives on that fateful day, in spite of the fact that no one could quite foresee the extent of the disaster that was to befall our Navy. It is sufficient to say that the lessons learned at Pearl Harbor have been taken to heart and that, partly based upon them, advances in Naval medicine have been made of which we are proud.

In time of war, the treatment of wounds and burns assumes proportions far above that accorded it in time of peace, although, even in peacetime, wounds in industry and the result of automobile accidents form a large part of the practice of our general surgeons and account for many patients in our hospital beds. That the lessons learned in war will be applied in peace goes without saying.

At the time of Pearl Harbor the minds of most surgeons were filled with the wonderful effects of treating all burns by some form of tanning. It is true that ideas as to the best method to be followed differed. Some favored quick tanning by tannic acid applied copiously; some advocated spraying; some thought it best to render the burn relatively sterile before tanning, others did not; some preferred to use the triple dyes, while some combined silver nitrate with tannic acid.

In the confusion and excitement necessarily incident to such an attack it was impossible to judge accurately just how effective one method of treatment was as compared with another. However, we do know that many men recovered from extensive burns whose cases would have been considered hopeless before the days of tanning. Now that we have learned from the British and our own researchers that the tanning method is not the ideal treatment for burns, we are forced to the conclusion that other parts of the treatment must have played a large part in the successful outcome of many of these cases. Among these adjuncts, if they may be so called, I want to mention blood plasma and the sulfa drugs.

Everyone recognizes the role played by shock in causing death from extensive burns

and severe injuries. For years we have been giving our patients saline and glucose solutions, and even whole-blood transfusions to combat shock, but it was not until recently that the supreme value of blood-plasma was fully recognized. Now, we have only to see the hundreds and thousands of young men of our armed forces alive and well today whose lives, before the days of plasma, would have been despaired of, to realize the virtue of this life-saving fluid. The Army and Navy are using plasma in vast quantities and I cannot refrain from paying tribute to the American Red Cross for making it possible for us to obtain this plasma from the blood drawn at its far-flung Blood Donor Centers.

But plasma is bulky and space is valuable on board ship and in the field. Also, plasma is difficult to regenerate under battle conditions. Therefore, the Navy is shifting over to the use of human serum albumin as fast as the manufacturers are able to process it. We fully realize that albumin cannot take the place of plasma in all cases, but we have excellent reason to believe that in shock it is just as effective as plasma. It is less bulky and easier to use under trying conditions. Besides, as is well known to most of you, there is good reason to believe that the by-products of its manufacture will prove to be of immense value.

So much has been said and written of the sulfa drugs that I am sure most of you are tired of hearing of them. At the beginning of the war, sulfanilamide was the only one of this group in common use. Its value in the treatment of diseases due to the gonococcus, pneumococcus, meningococcus, and some varieties of the streptococcus was well known and a bountiful supply was stored for use in war. It has proved to be worth its weight in gold, but, like all good things, it was not so good that it could not be improved upon. Soon we had sulfathiazole, sulfadiazine, sulfapyridine, and sulfaguanidine, and the Navy is making use of all of them for various purposes. One of the first things a wounded sailor or marine does after he is injured, if he is physically able to do so, is to open his first-aid kit and swallow his sulfadiazine tablets (4 Gm.). Then, before his wound is dressed,

he opens his package of sulfanilamide powder and dusts it into his wound. Whether or not sulfanilamide is of much efficacy locally, or, even, as some say, detrimental because of its action as a foreign body, we of the Navy feel that it is of real value and shall continue to use it until further evidence of its uselessness is presented. Whether it acts locally to inhibit bacterial growth or only after absorption into the blood stream is not of so much importance to the wounded man as the fact that it does save life and limb.

All surgeons are aware of the fact that in the treatment of burns four things are of primary importance. First, we must protect the burned area from infection; second, we must prevent and combat shock; third, we must reduce pain; and fourth, we must minimize fluid loss. All of these things are done at advance medical facilities, as far as possible. Burns are protected by sterile dressings, plasma is given if indicated and conditions permit, morphine is administered, and impervious dressings, to prevent seeping of precious blood serum, are applied.

Definitive treatment is given as soon as possible, but it is wise to remember that definitive treatment is but little more than first-aid treatment given under more favorable conditions. Life-saving is done at the front. Saving of function is accomplished later, but, because of rapid transport, of which I shall have more to say, first aid and definitive treatment merge. Definitive treatment, as I see it, finishes the things that first aid starts. When a seriously burned patient arrives at a hospital where time will allow consideration of methods of choice he is already on the road to recovery. He may, and usually does, require more plasma. Later, he may require debridement and plastic surgery to restore function. These are essentials and equipment and personnel have been provided for their accomplishment.

A little while ago I spoke of our mobile hospitals. Because these have proved of such worth, I feel that I should say a few more words about them. As the name implies, these units are intended to be easily

moved from place to place. As a matter of fact, because they are housed in prefabricated steel buildings, designed to meet a specific use, they may be shipped, put up, and taken down with comparative ease; that is, ease as compared to moving buildings of other types. They have, however, proved of such value wherever they have been constructed that no effort has been made to move them. They are self-contained units, composed of wards, operating suites, x-ray buildings, commissary departments, laundry, electric generators, complete sanitary equipment, and all that goes to make up a modern hospital. They may be set up in a city or in the wilds, as most of them have been on the islands of the South and Southwest Pacific where they have proved invaluable. If Admiral McIntire were here he would probably not mention these mobile hospitals, for they are very largely his own brain child.

One of the great lessons learned from this war is that *early* treatment is of great importance. A few hours delay may mean the difference between life and death. First-aid and treatment in field hospitals are imperative but definitive treatment is also essential. This can be given only in hospitals somewhat removed from the firing line and relatively secure from gunfire and bombing. Such hospitals have been established, but, even to reach these by ordinary means of transport would take too long. Consequently, transport of the wounded by air has been adopted with a resultant saving in life that is almost unbelievable. Reports show that of 4,039 men received on board a hospital ship after removal from the Solomon Islands by air, only 7 died. This is a remarkable achievement when it is realized that only the most seriously wounded were evacuated in this way. Practically the same percentage holds true in the case of all our advance base hospitals. Thus it is seen that if a man survives to reach a field hospital, his chance of ultimate recovery is excellent.

Another lesson we have learned is that it is not only the wounds of the flesh that require early, definitive treatment, but also those of the mind and nervous system. In spite of our efforts to screen out the potential neuropsychiatrics at our training sta-

tions, many men get by who under the strain and stress of long-continued battle conditions at sea, on shore, and in the air develop that condition commonly referred to as "war neurosis," but which is really most often only "environmental fatigue." Some of these, unless they receive prompt and intelligent treatment, will become psychotic; others will develop fixed neuroses and be lost to the service and of not much use in civil life. For this reason we are establishing, as near our front lines as possible, special hospitals staffed with experts to treat this unfortunate group. We hope and expect to salvage many by this plan.

World War I taught us that the greatest number of post-war casualties would be neuropaths of some type. To avoid this in the present war we have established in all training stations teams of psychiatrists and psychologists to screen out the obviously unfit and return them to civil life before they become wards of the government. Much has been accomplished by these groups and it is reasonable to suppose that because of their work the burden of care by the government of neuropsychiatric cases will be proportionately less after this war than after World War I. To make this screening more effective, we are now placing psychiatrists in all induction centers.

It is obviously impossible for me to discuss all phases of "Medical Achievements in This Present War" in the time at my disposal, but there are a few more things which I believe will be of interest to most of you of which I want to speak.

Since, as I am given to understand, the Calhoun Lecture is supposed to deal with ophthalmology, I feel that I should be remiss if I did not mention some of the Navy's problems in this great field of medicine. We recognize the importance of ophthalmology and, even in time of peace, insist that a proper proportion of our medical officers be trained in this specialty. A surprisingly large number of our regular officers have qualified for the diploma of the American Board of Ophthalmology. In war, when, as I have said, reserves come to our rescue, we have, of course, many qualified ophthalmologists among them. We try to use them where their special knowl-

edge will be of the greatest use. Occasionally, however, it is necessary to use an ophthalmologist for general duties. We know that before a man can become a good ophthalmologist he must be a good doctor; therefore able to meet demands placed upon him in other branches of medicine. I am glad to say that when an ophthalmologist has been called upon to perform duties outside of his specialty, almost without exception he has risen to the occasion, and complaints have been few.

War brings to the ophthalmologist problems which he seldom encounters in his civil practice. So far in this war, the problem of eye injuries due to poison gases has not presented itself. Yet, ophthalmologists must be ready to meet these conditions, for no one can say if or when they may arise.

Because such a large proportion of the Army and Navy now fights in the air, our ophthalmologists must be conversant with eye changes that result from rapid shifts of altitude. These may or may not be serious, but we know that aero-embolism may affect the eyes as well as other parts of the body, and result in distorted vision which may be the deciding factor in air combat or determine the safety of a landing.

Another problem which the ophthalmologist is helping us to solve is that of night vision. All must realize the importance of good night vision in the Navy. The lookout on a surface vessel or on a submarine cruising on the surface, or the spotter or gunner on a plane must be able to see in the dark if he is to sight the enemy vessel or plane in time. We know that the use of vitamin A is not the hoped-for answer. We know that training in the proper use of the eyes at night is helpful. We know the parts played by the rods and cones in vision differ, and that rod vision is of more use in darkness. We also know that the rods are insensitive to red light while the cones are not. Based upon this, we have adopted the plan of having all men about to go on duty as lookouts wear special red goggles. By doing this we know that we can shorten the necessary period of dark adaptation, from about one hour to just a few minutes. But, we also know that we have not found the final answer to this problem, and that the ultimate solu-

tion rests in the hands of the ophthalmologists.

It might be of interest to you to know just what sort of person a medical officer of the Navy is. First of all, he is a Doctor of Medicine, just like you, interested in all branches of his profession, but concentrating on some one specialty when the opportune time arrives. However, he has to learn first of all that the profession of a Naval Medical Officer is just as much a specialty as urology, gynecology, ophthalmology, or any other special branch of medicine or surgery, and that no matter what special interest he may have and no matter how proficient he may be in some limited specialty, he is not a good Naval Medical Officer unless he has made being one his primary specialty and subordinated all other specialties to it. It is difficult for some of our reserve officers who are in the service only for the duration of the war to realize this.

The Navy realizes the value of specialization in the sense in which it is usually understood. In times of peace our officers are encouraged to choose a specialty and perfect themselves in it. Opportunity is given them to take postgraduate courses at our great medical schools and clinics and in our own hospitals. When qualified they are given every opportunity to practice their specialty, but they must always bear in mind their obligation to be medical officers of the Navy in addition. In time of war, it is obviously impossible to carry on this program of training in the specialties to its full extent. We must and do depend very largely upon those specialists who through patriotic motives come to us in the reserve sometimes at great personal sacrifice. These men who are giving great service with small financial reward are those upon whom we depend in time of war. We could not function without them. We are proud of them and their accomplishments and, at the same time, feel certain that because of their contact with the Navy they will return to their practices in civil life better doctors than they were when they entered the service. I am glad to say that Georgia has given its full share of these men.

Although, as I have said, Naval Medicine is and must be the primary specialty of

those of us who make the Navy our career, there is one specialty included in this in which we must all have a certain degree of proficiency. I speak, of course, of preventive medicine. It is the duty of a Naval Medical Officer to prevent disease even more than to cure it. Hygiene, sanitation, a knowledge of quarantine methods, and such things are essential. It is unfortunate, but true, that most of our medical schools do not pay sufficient attention to these subjects and, consequently, our officers have to learn them after they enter the Navy.

Included in preventive medicine is, of course, the problem of the prevention and control of the tropical diseases. These are of peculiar interest to the Navy because, even in times of peace, a large part of our men are serving in tropical waters. In time of war these diseases assume even greater importance. In spite of this most of our medical schools pay little attention to these diseases. In this war we are faced with the problems of prevention and cure of typhus, yellow fever, filariasis, schistosomiasis, trypanosomiasis, the dysenteries, and, above all others, malaria. The outcome of the war may well depend upon our success or failure in combatting these diseases. Malaria has already played a large part in the South Pacific and is likely to do so elsewhere. Although this menace was recognized and steps taken to overcome it, the complete answer is not yet ours. We have our malaria control units which are doing a wonderful job in ridding areas of anopheline mosquitoes. We require the use of atabrine as a suppressive in highly infested areas. Yet, our men come down with malaria in numbers sufficient to render some combatant units relatively ineffective. We shall and must find the answer.

Most of these tropical diseases may seem to you of only academic interest, but, when our men begin coming home in large numbers, many of them carriers of these diseases, they may well become serious problems in your communities, especially in the Southern States, where recognized vectors are known to exist. It, therefore, behooves all of us to brush up on our knowledge of tropical diseases.

Since I am told that the general topic of your meeting is the "Further Training of Physicians" a few words about the Navy's College Training Program may not be amiss.

There seems to be a general feeling of apprehension throughout the country that education is about to become regimented and militarized. I do not believe this to be true. The educational system of the United States is too well founded in its fundamentals to be seriously disrupted by any temporary upset due to necessity of war. True, some lasting changes may occur, but these are not necessarily bad. The United States Naval Academy at Annapolis is an outstanding example of what a school designed to train line officers of the Navy should be, yet it would be a great pity if our system of education should be patterned too closely upon it. I think there is no danger of this, because educators of note as well as naval officers have had much to say as to what plan should be followed in this program. Courses will be condensed, certain subjects will be given additional emphasis, but, on the whole, a liberal education will be provided. The professors and instructors will be the same and they will not change quickly. They will continue to indoctrinate our youth in the virtues of decent living, tolerance, and kindness just as they have in the past. Military discipline will be added, but this is to be desired. Physical training will be given a more prominent part, which, in the light of our knowledge of the physical unfitness of one-third of the boys and men who apply for enlistment and commission in the Navy today, is most desirable. If the three things most generally associated with the Naval Academy training can be added to the curricula of our colleges, the youth undergoing this training will be greatly benefited and the nation will be most fortunate. These are: unswerving loyalty, strict discipline, and incorruptible honor. If these become part of the training of our youth we shall have little cause to worry about the future of our country.

There has been some apprehension on the part of our medical schools that their students might not receive adequate train-

ing under war conditions. I think I may say without fear of contradiction that the Navy has been most careful to avoid any interference with medical education. Certainly we have taken no members of faculties into our corps until they have been declared nonessential by their deans and we have insisted that, so far as the Navy is concerned, the premedical and predental courses must be sufficiently long to include all the courses now considered essential.

Of course there will be changes. There is a war — the greatest war in history — to be won. Until that is accomplished everything else must be subordinated. But we need have no fear that what we are doing to win the war will wreck the country. On the contrary, it is more probable that benefit will result.

When I asked Admiral McIntire what he had planned to say to you, his answer was that the doctors of Georgia were "Navy-minded" and would be interested in anything I could tell them about the Navy, and especially the achievements of its medical corps. He said that the subject he had chosen was "Medical Achievements in This Present War," so this has been the topic of my remarks today, upon the occasion of the 94th Annual Session of your Association.

I am certain that Admiral McIntire's regrets are sincere, for ever since early in February, when he was invited to deliver the Calhoun lecture, he has been looking forward with much pleasure to being with you. His interest in Georgia is real and his friendship with Doctor Paullin deep, so when he found that it would be impossible for him to be with you he was greatly disappointed. When he told me on Monday that he would be unable to come and would like me to substitute for him I was flattered, but at the same time somewhat apprehensive. First, because I knew that Admiral McIntire is the man you want to be here and that no substitute could possibly fill his place; and second, that he had no prepared address which I could read to you. In spite of all this I am glad to be here to meet you, and to see something of your great city and universities.

RIBOFLAVIN DEFICIENCY VERSUS PERLECHE

Differential Diagnosis of Fissuring of the Labial Commissures

PHILIP H. NIPPERT, M.D.
A. PARK MCGINTY, M.D.
Atlanta

Since the reports of Sebrell and Butler¹, Sydenstricker² and others, in regard to the signs of ariboflavinosis, much attention has been directed to the fissuring not uncommonly seen at the corners of the mouth. The clinician, who considers that every such lesion is due to a riboflavin deficiency, will often be disappointed with the failure of these fissures to respond to adequate vitamin therapy.

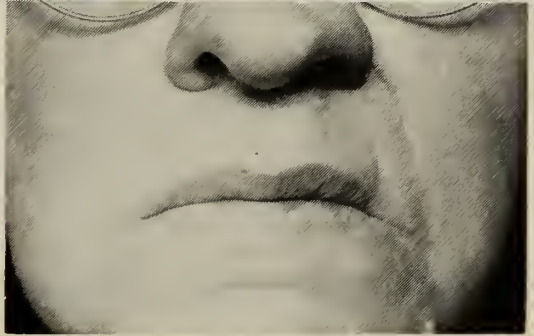
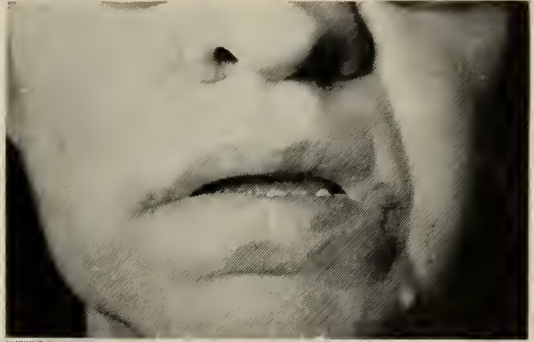


Fig. 2.
Perleche. Note the fissuring and erythema at the angles of the mouth and the absence of other lesions (Case 2).

Fig. 3.
After proper dentures had been supplied, the normal contour of the lips has been restored and the fissuring has disappeared (Case 2).



Fig. 1.

Ariboflavinosis. Note the fissuring at the labial angles and papules along the vermilion border; note also the keratotic papules of the nose and nasolabial folds (Case 1).

Read before the Fulton County Medical Society, Atlanta, Mar. 16, 1942.

From the Nutrition Clinic, Grady Hospital, Emory University School of Medicine, Atlanta.

Funds for the studies in this clinic were made available by a grant from the Upjohn Company, Kalamazoo, Michigan.

Lieutenant Nippert and Lieutenant Commander McGinty are now on active duty in the U. S. Naval Reserve.

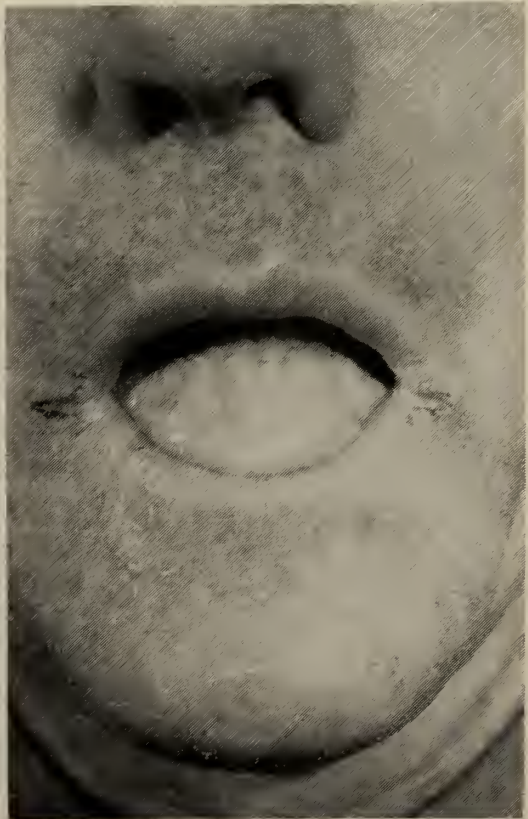


Fig. 4.
Fissuring at the corners of the mouth, desquamation of the vermilion of the lower lip extending out over the skin. Desquamation and erythema at the junction of the nasal septum and upper lip. The original diagnosis was ariboflavinosis (Case 3).

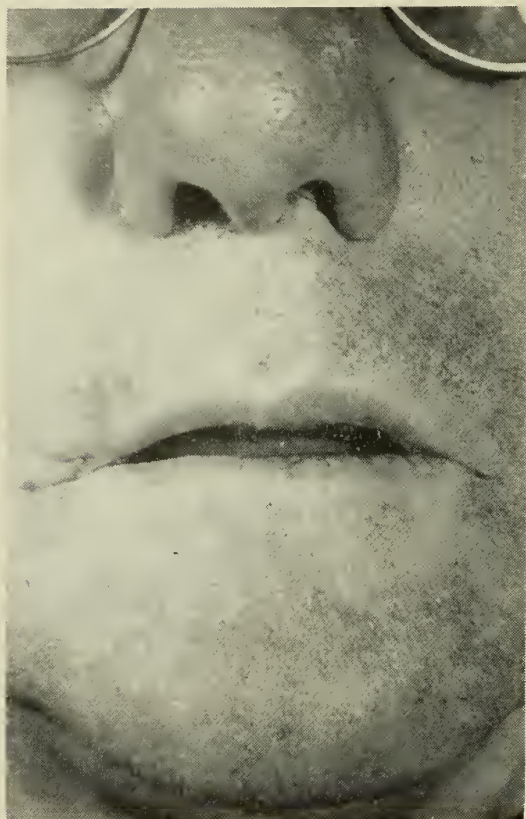


Fig. 5.

Following riboflavin therapy the fissuring at the angles of the mouth remains. The additional diagnosis of perleche was made (Case 3).

The erythema and desquamation of the mucosa of the lips resulting from riboflavin deficiency are frequently associated with the eye changes and the condition of the tongue characteristic of ariboflavinosis. In many cases, seborrhea-like lesions of the nasolabial folds and outer canthi are also noted. Achlorhydria is also frequently present.

Three cases from the series seen in the Nutrition Clinic, Grady Hospital, are abstracted as illustrations:

Case 1. A colored woman, aged 30, gave as her chief complaint "weakness," that had developed in the preceding six months; during which period she had been on a very limited diet. One month prior to admission an eruption had appeared on her arms, legs and face; her mouth had become sore (fig. 1); and lacrimation and photophobia had developed.

Because of the typical lesions, together with the history, a diagnosis of pellagra with associated riboflavin deficiency was made. Improvement promptly followed adequate vitamin therapy by mouth.

The lesion at the angles of the mouth that results from lack of riboflavin is most apt to be confused with perleche. Perleche is a



Fig. 6.

With proper dentures the mouth is filled out and the fissuring is healed, although there is still a little scarring (Case 3).

term derived from the French meaning "to lick." This condition is essentially an intertrigo of the labial commissures.

In children perleche often develops because of an abnormal amount of moisture at the angles of the mouth, a condition resulting from the habit of licking.

In adults the lesion is most frequently seen as a result of a narrowed bite, either because the natural teeth have been worn down or because of improperly fitting artificial dentures. The narrowed bite produces an additional fold at the labial commissures; the skin in this area then, because of constant moisture from saliva, becomes macerated, fissured and infected. The treatment for such a condition is proper dental adjustment. When the bite is opened and the anatomic defect thus corrected, the fissures will heal promptly.

Case 2. A white woman, aged 50, complained of "cracking at the corners of the mouth." Three years previously her remaining teeth had been extracted and replaced with upper and lower dentures. Although she had been advised to return in six months for proper adjustment, the patient had failed to do so. At the time

of admission the lesions had been present for two years. She had received many kinds of treatment, including riboflavin in large doses for six months, without benefit (fig. 2). A diagnosis of perleche was made, the result of a narrowed bite.

She was advised to see her dentist for appropriate treatment. Two weeks after she had been fitted with proper dentures (fig. 3) the lesions were entirely healed and there has been no recurrence for two years.

It is of course possible for the cheilosis of riboflavin deficiency and perleche to develop in the same patient. Probably many such examples exist, particularly in those past middle life, since the factors responsible for both lesions are likely to be present in the same person.

Case 3. A white man, aged 62, complained of "sore mouth." He had been feeling below par since an attack of "flu" six months before admission. An eruption of the face, soreness in mouth, lachrimation, and photophobia had been present for four months. He had worn artificial dentures for four years.

Because of the typical lesions, including eye changes and the characteristic tongue picture (fig. 4), a diagnosis of ariboflavinosis was made. Riboflavin in adequate amounts was given by mouth with some improvement. Parenteral injections of riboflavin resulted in complete healing except for the fissuring at the labial commissures which failed to improve (fig. 5). At this time an additional diagnosis of perleche was made, the result of his narrowed bite. Three weeks after proper dental adjustment, the fissures had healed completely (fig. 6).

Summary

Fissures at the angles of the mouth may be caused by ariboflavinosis or by a narrowed bite or by both. The cheilosis of ariboflavinosis usually will be accompanied by other signs of the deficiency and will be cured by an adequate consumption of riboflavin. The cheilosis of perleche will be relieved only by correcting the anatomic defect that resulted in the intertrigo; this will usually require new, well-fitting dentures.

Three cases are presented to illustrate the differential diagnosis. The cheilosis in the first responded to riboflavin, in the second to proper dentures, while the third required both vitamin therapy and dental adjustment.

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THE USE OF VITAMIN C AND NICOTINIC ACID IN BRIGHT'S DISEASE

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In a previous paper, published April, 1939, in *THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA*, I reported two cases of nephrosis with edema, albuminuria and oliguria which were rapidly relieved by the administration of vitamin C and nicotinic acid. The two vitamins were continued after the edema subsided. After a time the albumin in the urine also disappeared. In this paper I shall report additional cases with the laboratory findings and results of the treatment. In some cases the results were obtained very rapidly, while others were slow in recovering, depending on the duration and the severity of the illness.

Reports of Cases

Case 1. Male, aged 68. He has been a diabetic for years. He had never shown albumin in the urine. His blood chemistry, other than high sugar, had been normal. At times he had anemia which was corrected with liver and iron therapy.

Patient entered hospital Sept. 13, 1939. He had been complaining of weakness, headache, nausea and severe cramps in legs and feet for past month. He had been to several resorts for baths, water cures, etc.

Physical Examination: Blood pressure, heart and lungs normal. He could not articulate plainly, gait unsteady, edema of tissues. Considering the patient's age, general physical condition and the laboratory findings, a bad prognosis was given.

Treatment: Vitamin C, 100 mg., nicotinic acid, 50 mg., intravenous every 4 hours for 6 injections, then by mouth indefinitely. Diet and insulin for diabetic condition. His diet consisted mostly of raw fruits, vegetable salads and milk. On account of the low plasma chloride and diabetic condition he was given 1000 cc. normal salt solution in vein followed by enteric coated tablets of sodium chloride every 8 hours.

Blood chemistries were made twice a week and each test showed a decided improvement. He returned home Oct. 2. He has been checked at intervals and continues normal.

Comment: Within a period of 19 days the patient's condition changed from a desperate one to normal. After the first week in hospital protein was added to the diet without any increase of N.P.N. but with a decided increase of plasma protein. The sodium chloride did not increase the edema but gave relief from leg pains and improved his general feeling of well-being. In looking over the first laboratory findings one would be justified

Read before the Georgia Medical Society, Savannah, Ga., October, 1942.

in saying the case was hopeless but he made a good recovery and is still well and leading a normal life.

Case 2. Male, aged 32 years. On Dec. 28, 1939, I was called by his attending physician to see this young man who was suffering with an intense and persistent headache which could not be relieved by opiates. His vision was so impaired he could not distinguish faces at a distance of 3 feet.

Physical Examination: Patient well developed, fine muscular condition, slight edema of legs, amaurosis, albuminuria. Heart and lungs negative. Blood pressure 240/110-130. The hypertension and headache had existed for a year or more. There was nothing in his past history that would have any bearing on his present condition.

Treatment: Vitamin C and nicotinic acid, 50 mg. each, every 4 hours. Salt-free diet of fruits, vegetables and milk.

Comment: This case illustrates the metabolic changes brought about by the vitamins in such complications as albuminuria, retinitis, and hypertension. The patient was able to return to his work as city fireman April, 1940. He has been checked repeatedly and continues to be normal.

Case 3. Male, aged 43 years. He came to the office Nov. 28, 1940. He complained of gas in stomach, eructation of sour food, abdominal pain, swelling of feet and legs, rapid gain in weight, severe headaches, and impaired vision.

Physical Examination: Patient well developed, very edematous over entire body, gums badly infected with pyorrhea. Heart valves normal, sounds distant and muffled, rhythm regular, rate 55 per minute. Lungs negative. Weight 173.5 lbs. Blood pressure 150/95-65.

Past History: He gave an indefinite history of having had some edema about a year previous to this visit, otherwise negative.

Treatment: For 6 days gave vitamin C and nicotinic acid, 100 mg. each, in vein once daily. Diet consisted of fruits, vegetables and milk. The two vitamins were continued in tablet form indefinitely, 50 mg. each 3 times daily.

Comment: There was a rapid increase in the urine output. His weight dropped from 173.5 to 155 which represented the loss of fluid from intercellular spaces. At the end of 8 days' treatment the N.P.N. was normal, and urine was free of albumin. At this time he was advised to have a few teeth extracted. Following the extraction N.P.N. increased to 75 mg., and there was a reappearance of albumin in urine. His condition rapidly cleared up and became normal.

This case is interesting from several angles. It shows the splendid diuretic effect obtained from the vitamins. It also demonstrates the effect of infection on metabolism. Within a period of 60 days the patient became normal and was able to return to work.

Case 4. Male, aged 45 years. I was called Jan. 23, 1940, to a neighboring city to see this patient. His physician stated that two weeks previous he had an attack of influenza with a complicating arthritis involving several joints. One week prior to my visit he became nauseated and vomited. He had severe headaches, felt weak and prostrated. Urine showed heavy albumin, his N.P.N.

was 47 mg. He continued to grow worse, developed persistent hiccough, nausea, and obstinate constipation. Suspecting a uremic condition I took blood for chemistry. He continued to grow worse and two days later entered a hospital in Savannah. No change in blood chemistry.

Treatment: Vitamin C and nicotinic acid, 100 mg. each, in vein every 6 hours for 24 hours, then tablets every 6 hours.

Comment: He improved rapidly and returned home Feb. 23. He continued to improve until the first of April. He returned to the hospital on April 5 and had not passed any urine for 48 hours. He was catheterized but no urine was found in bladder. We tried several diuretics, intravenous salines and glucose with no results. He now had an anuria of 5 days' duration.

Treatment: On April 8 at 6 P.M. we gave vitamin C and nicotinic acid, 100 mg. each, in vein every 6 hours.

At 1:30 A.M., 7½ hours after first injection of the two vitamins, the patient began voiding. (See table). After the kidneys began functioning we gave the vitamin tablets, 50 mg. each, at 6 hour intervals. His plasma proteins were low, but not low enough to cause edema. The edema was due to anuria and clysis of saline solution.

Comment: This case is interesting from more than one standpoint: He had only one kidney and had passed several calculi. We had kidney and ureter x-rayed in order to determine whether there was a mechanical stoppage of the urine flow. There were two small stones in the ureter. He was catheterized at 8:30 A.M. to see if there was a hydronephrosis. The catheter passed the first stone easily; the second was larger and it was difficult to get the catheter to pass. There was no hydronephrosis. At 5:30 P.M. he was catheterized again and there was no urine in the bladder. We had waited to see if the kidney would begin to function after passing the catheter. We then began the treatment with the two vitamins in the vein at 6 P.M. The urine began to flow at 1:30 A.M. This patient has returned frequently for check-up. On last visit he was in splendid condition.

Case 5. Boy, aged 10 years. The history given by his mother was as follows: Three weeks prior to his illness he had complained of sore throat which lasted 3 days; temperature was 100. No examination of urine was made at that time. Three weeks later he felt ill, had anorexia, nausea, and headache. On third day after onset had a convulsion, persistent vomiting, and amaurosis. He was then brought to Savannah and entered a hospital June 7, 1941, when I first saw him.

Physical Examination: Blood pressure 172/120, weight 140 lbs., temperature 101. Convulsions occurred from 2 to 3 hours, persistent vomiting, acute abdominal pain, violent headache and edema.

Treatment: Vitamin C, 100 mg. in vein, repeated at 6 hour intervals for 24 hours. Nicotinic acid tablets, 50 mg. each, every 6 hours. After 4 injections vitamin C tablets, each 100 mg., were given every 6 hours.

Comment: The patient had only one convulsion after the first injection of vitamin C. Vomiting ceased within 6 hours when he called for fluids and retained them. We could not measure the output of urine as most of the time it was involuntary. Examined several specimens which contained heavy albumin.

He was dismissed from the hospital on the eighth day with normal urine and blood chemistry.

Case 6. Male, aged 45 years. Patient, referred by out of town physician, entered hospital April 26, 1941, with a diagnosis of double pneumonia, which was correct.

On examination we found he had glycosuria and heavy albumin in urine. He constantly vomited large quantities of gastric juice containing blood, often expectorating blood tinged mucus. Heart sounds were hardly audible, chest full of bubbling rales. Blood pressure 80/70, pulse 104, numerous deficits. His usual blood pressure 162/90. Temperature 102.

Treatment: We directed our treatment to controlling his blood sugar and plasma protein. Within 24 hours the blood sugar was 150 mg., and the N.P.N. was 100 mg. In 48 hours the blood sugar was 125 mg., N.P.N. 75 mg. The sugar was easily controlled throughout the attack; N.P.N. varied from 50 to 75 mg., depending on the temperature and pneumonic process which spread over the greater portion of his lungs.

On May 12, 16 days after entering hospital, there was decided edema of skin tissue. His legs, thighs and back were so edematous they had a board-like feeling.

Treatment: Vitamin C and nicotinic acid, 100 mg. each, in vein twice daily. An occasional hypodermic of camphor in oil was given as a heart stimulant, and found to be very effective. Codeine was used to give him rest. No other medication. He remained in oxygen tent for 10 days.

Comment: During period in hospital the patient developed three attacks of myocardial failure in which blood pressure would drop from about 160 to 90, when he would develop edema of lungs, cough, rales, and bloody sputum. Stimulation had no effect. During one attack we bled him 150 cc., which gave relief. The next day he was given a transfusion of 200 cc. of citrated blood.

After a stormy course he returned home May 30. He has continued to take the two vitamins, 50 mg. each, three times daily. He has returned several times for check-up. As long as he continues the vitamins and a balanced diet he has normal blood chemistry and urine.

Case 7. Female, aged 33 years. I first saw patient in consultation after she entered hospital Mar. 27, 1943. She had severe pain in cervical region of spine and occipital region of head, persistent nausea, and frequent vomiting.

History: About March 10 had fever and sore throat. Physician found she had badly inflamed throat with considerable edema of uvula and albumin in urine. Tablets, probably one of the sulfa drugs, were given without any bad effects. About a week later she noticed that the output of urine was very little and rapidly grew less until she reached the point of oliguria. The urine contained heavy albumin, blood cells, and pus cells. She had general edema, anasarca, and persistent vomiting day and night. Blood pressure 162/110—62. R.B.C. 3,250,000; W.B.C. 10:00 P.M. 85 per cent, Sm. 15 per cent. Urine dark mahogany color, due to blood cells. Heart sounds weak and distant. Edema of entire body, decided pallor, pulse rapid, small volume. During stay in hospital had several hemorrhages from nose and uterus.

Treatment: Due to hemorrhages we gave several blood transfusions. We also gave large doses of vitamin K with calcium, but cannot say whether effective.

Vitamin C and nicotinic acid, 100 mg. each, in vein every 6 hours for 6 days. Then the vitamins in tablet form indefinitely.

Comment: Vomiting and nausea ceased after 48 hours. Occipital headache relieved, vision cleared in about a week. Blood cells diminished, but urine not entirely clear for a month or more. She has 1 Gm. albumin per liter; on separating globulin from serum albumin, Esbach albuminometer shows about 0.5 Gm. serum albumin per liter. She is taking ammonium chloride and mandelic acid, as she still shows few pus cells in urine.

Pregnant Patients

In addition to the relief of anasarca in Bright's disease the two vitamins here mentioned have been used in antepartum and postpartum cases with edema, hypertension and albuminuria with success. The following case is an example of the results in an antepartum case:

During second month of pregnancy the patient was referred by her family physician for advice as to the possibility of going to full-term. She gave a history of being in good health. The only illness of any consequence was pyelitis in 1939. The condition was soon cleared up, but no further examinations were made as to the possibility of damaged kidneys, until her pregnancy.

She kept in contact with us. During the remaining months of pregnancy we did four blood chemistries and plasma protein determinations, and numerous examinations of her urine, and blood counts. There was no edema after vitamin C and nicotinic acid treatment was given. The albumin in urine dropped to a trace, and often was free. The plasma proteins, as usual during pregnancy, were below normal. Her blood pressure dropped from 150/90 to 100/80.

Treatment: Vitamin C and nicotinic acid, 50 mg. each, three times daily. High protein diet. Liver and iron for anemia.

About ten days before expected time of delivery her pressure increased to 160/100. She had a normal delivery.

Postpartum Case: Labor had to be induced. The patient developed hypertension, headaches, amaurosis, heavy albuminuria, uremic vomiting, convulsions.

Treatment: Vitamin C and nicotinic acid, 100 mg. each, in vein every 6 hours.

The clinical symptoms cleared up within a week. The only other medication used was intramuscular injections of sulphate of magnesia for relief of headache. The blood chemistry was normal—N.P.N. 30 mg. There was a deficiency of colloidal albumin, total proteins and osmotic pressure.

These findings are typical of all pregnancy cases we have examined.

Conclusions

The more I study the symptom-complex of Bright's disease the more I am convinced that my statement made eleven years ago

TABLE 1
DATA ON CASE 1

Date	B L O O D										U R I N E			
	Sugar mg.	Chl. mg.	NPN mg.	Creatinine mg.	Cholesterol mg.	Glob. Gm.	Alb. Gm.	TP Gm.	A. G R	Osmotic Pressure mm.	Vol. cc.	Alb. Gm. L	Chl. Gm. L	PSP %
1939														
9/13	350	375	200	11.3	300	2.46	2.22	4.68	1.5	15.8		HT		7
10/2	187	560	30	2	200	2.09	5.54	7.63	2.6	33.4		neg.		55

TABLE 2
DATA ON CASE 2

1939														
12/28	125	475	27	1.5	533	1.99	3.65	5.64	1.8	22.9	2250	10.2	8	55
1/11/40											4000	3	13	
6/28			30		200	1.56	3.76	5.32	2.4	26.8		FT		90

TABLE 3
DATA ON CASE 3

1940														
12/1	136	595	67	2.6	160	4.16	2.88	7.05	0.69	21.7	480	1	2	35
6											1860	0.8	11 T	
2/27/41	115	580	34		100	2.89	5.14	8.03	1.8	32.3		neg.		55

TABLE 4
DATA ON CASE 4

1940														
1/23	214	510	150	5.6	320	3.31	3.71	7.03	1.1	21.1				25
2/23	187	485	30	2.0	520	2.08	3.19	5.28	1.5	20.5				33
4/5	214	490	100	7.5	320	1.92	3.24	5.16	1.7	20.5	anuria			
4/9											8790			
4/24	125	500	28	1.3	500	2.13	3.12	5.26	1.4	20.2				37

TABLE 5
DATA ON CASE 5

1941														
6/7	166	550	43									1.7		
6/11	136		25									neg.		

TABLE 6
DATA ON CASE 6

1941														
4/26	850	515	120	2.5	160									
5/12	136	500	50			2.06	3.88	5.94	1.9	24.2		HT	0.8	55
11/23	150	485	28	1.5	160	1.85	5.29	7.14	2.5	31.7				55

TABLE 7
DATA ON CASE 7

1943														
3/27	136	530	200	10	300	3.41	1.0	4.41	0.3	10.3		12	0	
4/19	136	525	75	3.5	160	4.93	2.04	6.97	0.4	18.1		2.8	1.2	
5/27	107	500	35	2		1.87	4.27	6.14	2.2	21.1		0.5	4.2	33

holds true: "Bright's disease is not a primary disease of the kidney but is brought about by a metabolic breakdown." This metabolic failure seems to be greatly influenced by a vitamin deficiency as shown

by the rapid recovery of patients under vitamin treatment. The first step in the interruption of normal metabolism very likely takes place in the liver and is due to its inability to detoxify whereby foreign pro-

teins enter the blood stream and set up an inflammatory condition in the kidney which is the point of elimination. There is also some effect upon the ability of the liver to generate endogenous proteins from exogenous proteins.

The clinical reports of these cases demonstrate that a man may have an extremely high N.P.N. and creatinine and still recover as in Case 1. Case 2 shows how desperately ill a man can be with hypertension, heavy albumin, retinitis, slight edema, and have practically normal blood chemistry and plasma proteins. Case 3 was very ill, edema of entire body, small amount of albumin in urine, a low plasma protein and a high N.P.N. Case 4 had anuria of 5 days, high N.P.N., creatinine and heavy albumin in urine. Case 5 had albuminuria, retinitis, and convulsions. Cases 6 and 7 were very ill, heavy albuminuria, high N.P.N., creatinine, and edema. All recovered on vitamin C and nicotinic acid.

These cases demonstrate that the edema is influenced by the plasma proteins: When the albumin in the blood stream is below 3 Gm. per 100 cc. plasma with a low colloidal osmotic pressure, there is edema. In most cases with marked edema there is generally a low plasma chloride but after diuresis is established by the vitamins the plasma chloride increases, also the output of chloride, water, and urea in urine. It appears from this that vitamin C and nicotinic acid have some direct effect upon the metabolism of salt and water, thus allowing the water which is being held in the intercellular spaces to be presented to the kidneys along with the sodium chloride and nitrogenous end products for elimination. In some of our cases after diuresis had been established with some reduction of edema, patients did not become entirely free of edema until they had consumed and converted sufficient exogenous proteins to restore the colloidal albumin to normal or above 3 Gm. Cases that were unable to do this in the beginning of treatment were very slow in recovering; and some never completely recovered, but all improved.

In all of these cases we have been impressed with the remarkable diuretic effect

and the rapid lowering of N.P.N. and creatinine, the reduction of albumin in urine, the return of plasma proteins to normal and the general feeling of well-being. I have noticed that children with marked edema do not respond well to treatments. Those without or with a slight edema make a good recovery if treatment is begun at once, and proteins are not withheld from the diet.

We watch the N.P.N. and creatinine while patients are taking a high protein diet; and, if there is any increase, we discontinue the proteins temporarily and give them fruits, vegetables and milk. As soon as the N.P.N. becomes normal we add proteins in small amounts and increase them as the patient improves. No salt is given if there is edema.

Four cases in this group had foci of infection: One had pyorrhea, two sore throat, type of infection unknown; one pyelitis. In the other cases we could find no source of infection or get a history of any. All of these cases were restored to normal by vitamin C and nicotinic acid. This brings up the question: Does vitamin deficiency cause a lessened resistance to infection, or does the infection bring about the vitamin deficiency? I have observed in all cases of children a history of throat infection was given. Usually no physician was consulted. Edema was the first symptom that attracted the attention of their parents. It is very important that all children having sore throat have urine examined for six weeks or longer following the primary illness. We have noticed that in all cases of children treated had a very high leukocyte count, some as high as 16,000. The leukocytosis became normal within a few days after treatment with the two vitamins.

Before beginning treatment it is necessary to determine whether the case is suitable for this treatment. Eliminate the heart as the cause of the ascites or generalized edema. Test the kidney function to see if there are enough nephrons active and capable of carrying on a normal elimination of solids. The P.S.P. test is not to be relied upon as a true test of the kidney function, as shown in Case 1 when the output of dye was only 7 per cent in 2 hours, later becom-

ing normal. All patients should have a complete blood chemistry and plasma protein determination, blood counts, etc., the volume and sodium chloride content of the urine, the amount of albumin, pus, casts, etc. The eyes should be examined. These examinations will give some basis for prognosis, but often the case that looks hopeless will recover as in some of the cases presented.

It has been found that several cases would continue to show albumin in urine with heat and acetic acid test, and also an abnormal amount of white cells in urine with only an occasional red cell. By precipitating the globulin from the albumin we found the greater part of the precipitate to be globulin with a small amount of serum albumin. Patients that are found to have this condition are given some form of mendalic acid and ammonium chloride with a rapid diminution of the proteinuria globulin and pus. During this treatment the pH of urine is closely watched.

We have had about 50 cases under treatment within two years. The cases presented are typical of all. In reporting these cases I do not intend to convey the idea that the treatment is a panacea. I have had several deaths, notwithstanding the administration of the vitamins in very large doses. They were well advanced in age, had nephritis of long standing with accompanying degeneration of their hearts and livers.

Several of my colleagues are using these two vitamins routinely before and after operations on the genito-urinary tract, reporting good results. So far none have reported uremic conditions following operations.

SULFADIAZINE FOR MENINGITIS

The routine administration of sulfadiazine in all cases of meningococcal infections, which include meningitis, is recommended by Lieutenant Colonel Lewis Webb Hill and Captain Haseltine Smith Lever, Medical Corps, Army of the United States, in their report in *The Journal of the American Medical Association* for September 4 on an outbreak in an army camp. There were no deaths in 68 consecutive cases. This recommendation is supported by another report in the same issue of *The Journal*, made by Lieutenant Colonel Worth B. Daniels, Captain Sydney Solomon and First Lieutenant William A. Jaquette, Jr., Medical Corps, Army of the United States.

OSTEOMYELITIS

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Introduction

The treatment of osteomyelitis has long been disappointing. Since the development of the sulfonamide group of drugs, new hope has sprung up. It is our intention in this paper to review briefly the pathologic changes, symptoms, and treatment of acute and chronic osteomyelitis and to present a comparative study of 307 cases at the Grady Memorial Hospital in Atlanta, Georgia, with special reference to the use of sulfathiazole in addition to surgery.

Pathogenesis and Pathology

Acute osteomyelitis most commonly involves the long bones, and the distal ends of the shafts are the most common sites of origin. The arteries that supply these areas end in sharp hairpin loops where pooling of blood takes place and clumps of bacteria floating in the blood stream are readily arrested. It is in these areas that most stress and strain occur, due to ligamentous attachments and the mechanical pull of muscles; and small microscopic fractures may occur in the bony trabeculations. The subsequent effusion and hemorrhage produce lowered vitality of tissue and this area falls easy prey to septic bacteria from without or from a transient bacteremia. Pus forms under pressure and forces its way outward beneath the periosteum or along the Volkmann's canals and Haversian canaliculi of the bone cortex. Septic emboli may leave this area to set up distant foci.

If the process goes into chronicity there develops a fibrous tissue reaction in the bone and in the soft tissue. Small areas of bone become nonviable (sequestra) and float in pools of pus with no means of nutrition nor absorption. The periosteum lays down new bone (involucrum) on the periphery and, through fenestrations in this, pus may drain into the soft tissue. Should this process reach the skin surface there is a persistent draining sinus.

Symptoms and Course

In view of the histopathologic changes, the clinical manifestations of the disease are easily understood. The earliest symptoms — general malaise and high fever — are associated with the bacteremia. Chills are frequently associated with the passage of clumps of organisms from the bone focus by way of the marrow sinusoids into the general circulation. The patient may become dehydrated and toxic without notable symptoms from the local bone lesion. Usually by the tenth day there is local pain due to increased subperiosteal tension. Point tenderness on pressure or bone percussion may be demonstrated early, and the other signs of acute inflammation follow in time. The classic signs of the acute stage consist of high fever and a deep-seated brawny swelling near a joint, but if the process is a result of trauma the signs naturally follow at that point. Enlargement of the appropriate lymph nodes and sympathetic joint effusions are always of diagnostic aid. The blood picture shows a leukocytosis with increase in the immature forms of the cells, some degree of secondary anemia, and frequently positive blood cultures. Roentgenograms are of little value for early diagnosis.

The acute stage gradually goes into the subacute stage with a decrease in the systemic and a relative increase in the local manifestations. The process gradually becomes chronic and there develops a draining sinus which remains after the liberation of pus and subsidence of the infection. This sinus may persist until all necrotic bone is removed. Acute exacerbations may occur at periodic intervals when the drainage becomes inadequate, and during these flare-ups the blood culture may again become positive. During this stage the roentgenographic picture is characteristic.

Treatment

The treatment of osteomyelitis has resolved itself into the treatment of the acute and chronic stages.

In the acute stage, due to the predominance of constitutional symptoms, the treatment is supportive. It includes parenteral fluids to decrease dehydration and acidosis, transfusions to combat septicemia and anemia, and, in our opinion, also one of the

sulfonamides to combat the bacteremia and septicemia. The principles in the care of the local bone lesion are adequate drainage and immobilization. There is a great deal of controversy as to the time of drainage and this depends to a great extent on the local lesion. The present trend is to operate as soon as the bacteremia can be brought under control and not to await the presence of demonstrable pus. We believe this middle course to be the wisest.

Drainage may be accomplished by incision of the periosteum, drill holes into the affected bone, saucerization, or subperiosteal resection of part of the bone. Simple incision of the periosteum and drill holes into the affected bone are inadequate procedures in most cases, but rarely is so radical a procedure as subperiosteal resection necessary. The usual procedure of choice is saucerization followed by packing the cavity with vaseline gauze to maintain drainage. There should be infrequent dressings without the use of irritating antiseptics. Immobilization is best maintained by a plaster cast in a good functional position.

The treatment of chronic osteomyelitis consists of the management of the local bone lesion and, except for acute exacerbations, there are seldom important systemic manifestations. The treatment may be supportive in the hope that the dead bone may become revascularized. When soft tissue abscesses occur, incision and drainage may be instituted. These are seldom adequate, however, and again we must apply the principles of adequate drainage and immobilization. It is generally agreed that the procedure of choice is saucerization and curettage of the necrotic bone. Orr³ advocates vaseline gauze, a plaster cast, and very infrequent dressings. Lohr³ modifies this somewhat by pouring cod liver oil into the operative wound and closing the skin. Baer² advocates the introduction into the operative wound of sterile maggots which act as scavengers and also produce an enzyme which stimulates the production of granulation tissue. Albee² and others obtain good results by introducing into the operative wound a bacteriophage which they develop from a culture of the offending organisms. The Carrel-Dakin technic² in-

TABLE 1
BONE INCIDENCE

<i>Tibia</i>	<i>Femur</i>	<i>Phalanx</i>	<i>Mandible</i>	<i>Bones of Foot</i>
23.8%	23.5%	12.5%	8.5%	3.7%
<i>Fibula</i>	<i>Humerus</i>	<i>Skull</i>	<i>Radius</i>	<i>Bones of Hand</i>
5.9%	4.8%	3.7%	3.1%	2%
<i>Ulnar</i>	<i>Pelvis</i>	<i>Vertebrae</i>	<i>Clavicle</i>	<i>Coccyx & Sacrum</i>
2%	2%	1.1%	0.8%	0.6%
<i>Scapula</i>	<i>Ribs</i>	<i>Patella</i>	<i>Total Bones</i>	<i>Total Cases</i>
0.8%	0.6%	0.6%	353	307

TABLE 2
AGE INCIDENCE

	0-5 yrs.	6-12 yrs.	13-25 yrs.	26-45 yrs.	46 - above
Acute	12	35	24	31	9
Chronic	6	25	63	63	30

volves the use of frequent irrigations with Dakin's solution to clear the wound of infection. The sulfa drugs must now be evaluated as an adjunct in the treatment of this stage.

Use of Sulfathiazole

Although there have been relatively few articles published on the use of the sulfonamide group of drugs in the treatment of osteomyelitis, there has been no great uniformity of opinion. From the noteworthy articles there are a few whose tenor deserves mention.

Wilenski⁴ stated that chemotherapy in acute osteomyelitis is of value in sterilizing the blood stream, but has no value in eradicating a potentially provocative focus capable of throwing bacteria into the blood stream. Penburthy and Weller⁵ agree that the sulfonamides will reduce mortality from septicemia, and go further to say that chemotherapy will aid in preventing metastatic foci, decrease complications in number and severity, and limit bone destruction and deformity. Hoyt, Davis, and Van Burean⁶ reported eight cases of acute osteomyelitis treated by chemotherapy alone with excellent results. They believe that the abscess cavity can be sterilized by the use of a sulfonamide. However, it seems to be generally agreed that surgery has not lost its importance. Milton⁹ stated that though chemotherapy lessens the dangers of sur-

gery, it is not substitute for drainage. Wilson and McKiever⁷ warn that one should not be lulled into a sense of false security when a patient receiving one of the sulfonamides has a sudden diminution of toxic symptoms. Wilenski⁴ advises oral chemotherapy and, after thorough debridement, a sulfonamide in the operative wound.

In the chronic cases we deal primarily with an abscess which is encapsulated and thus produces another problem. Key, Troubel and Burford⁸ stated in 1940 that fibrous encapsulation make it difficult for blood-borne medication to reach the focus in sufficient concentration to be effective. There have been contradictions of this, however, and Long and Wilenski⁶ have said that if the abscess cavity can be sterilized the sequestrum will become revascularized and act as a bone graft. Penberthy and Weller⁵ agreed in principle when they stated that chemotherapy is an aid in promoting regeneration of bone and thereby in shortening convalescence.

For the past four years we have used the sulfa group of drugs as an adjunct in the treatment of both acute and chronic osteomyelitis. Sulfathiazole has been most frequently used, and is employed both locally and by mouth. Following saucerization and currettement our plan of treatment consists of packing the wound with 4 to 8 grams of

TABLE 3
ACUTE OSTEOMYELITIS

Type of Treatment	WITH CHEMOTHERAPY				WITHOUT CHEMOTHERAPY			
	Cure	Improved	Not Improved	Death	Cure	Improved	Not Improved	Death
Supportive	3	2	0	2	3	2	0	2
Incision & Drainage.....	5	1	0	0	6	4	1	2
Osteotomy plus I. & D.....	2	0	1	0	7	26	0	4
Osteotomy plus Orr.....	11	12	1	1	4	10	0	1
Total	21	15	3	3	20	42	1	9
% Total	50%	35.7%	7.1%	7.1%	27.8%	53.3%	1.4%	12.5%

TABLE 4
CHRONIC OSTEOMYELITIS

Type of Treatment	WITH CHEMOTHERAPY				WITHOUT CHEMOTHERAPY			
	Cure	Improved	Not Improved	Death	Cure	Improved	Not Improved	Death
Supportive	0	1	0	0	2	9	8	1
Incision & Drainage.....	0	5	4	0	3	9	3	0
Osteotomy plus I. & D.....	10	9	1	0	27	47	27	0
Osteotomy plus Orr.....	6	12	10	0	17	21	6	0
Total	16	27	15	0	49	86	44	1
% Total	27.6%	46.6%	25.8%	0%	27.2%	47.8%	24.4%	0.5%

sulfathiazole and a vaseline gauze pack. In the acute cases large doses of sulfathiazole are begun as soon as the diagnosis is made and are continued postoperatively until the acute infection has subsided. The dosage is 6 grams daily for an adult, and $1\frac{1}{2}$ to 2 grains per pound of body weight daily for children. The dose may be reduced as the clinical course indicates. In the chronic cases we give moderate doses of the drug (3 to 4 grams daily for an adult, and 1 to $1\frac{1}{2}$ grains per pound daily for children) by mouth for a few days following operation. This serves as prophylaxis against any acute exacerbation that operation may excite. We believe also that early active motion should be initiated in the chronic cases after a preliminary postoperative period of immobilization.

Data from Grady Hospital Cases

In an analysis of the cases of osteomyelitis admitted to Grady Memorial Hospital, Atlanta, from January, 1925, through November, 1942, we found 113 cases of acute and 194 cases of chronic osteomyelitis. In the 307 cases there were 353 bones involved with an incidence as indicated in table 1. Upon investigation we found 30 cases began with compound fractures, 35 cases originated in simple fractures, and 14 cases supposedly originated in various other traumas without gross skin

lesions. This may give an incorrect idea of the part of trauma in general in these cases since there was no statement of the origin of many of the cases of long-standing chronic osteomyelitis; and, conversely, because trauma may have been unjustly blamed in some of the cases. The age incidence of the acute and chronic cases is shown in table 2.

As shown in tables 3 and 4, we have divided the treatment into four types: 1, supportive; 2, incision and drainage; 3, osteotomy and drainage; and 4, osteotomy and Orr treatment. We have divided the cases according to whether they received chemotherapy, and have classified them as to which of the four types of treatment they received. Then we attempted to determine the results of treatment in each case. If the patient was discharged with no clinical manifestation and has not returned with recurrence, he is classified as "cured." Many of these patients were x-rayed before dismissal and signs of repair were evident. If x-ray evidence of activity was still present, though the patient was asymptomatic on the last visit, he is classified as "improved." Also classified as "improved" are those who had acute osteomyelitis which became chronic, those who had acute exacerbations with prompt remission under treatment, and those who under treatment showed definite decrease in the severity of their subjective and objective manifestations. Those who showed very little change, no change, or progression of the disease are classified as "not improved." The deaths listed are those with which we may identify the osteomyelitis either directly or indirectly.

The classification needs a further word of explanation. The "osteotomy plus I. D." cases were seen at fairly

frequent intervals, while those classed as "osteotomy plus Orr" were allowed to go long periods (6 to 10 weeks) with casts and infrequent dressings. The treatment was classified as above (tables 3 and 4) in order to rule out all factors other than sulfathiazole and to properly evaluate its worth in these cases.

As will be seen in table 3, there is definite advantage in the use of sulfathiazole in acute osteomyelitis. Fifty per cent of the patients were cured and 36 per cent improved after receiving sulfathiazole, as opposed to 28 per cent cured and 58 per cent improved when not receiving this drug. The high death rate in the group not receiving surgery is explained by failure to diagnose pre-mortem and by the omission of surgery in those in extremis when first seen.

On the other hand, we see by table 4 that no apparent advantage resulted in the use of sulfathiazole in the cases of chronic osteomyelitis. We do feel, however, that the use of the drug is of value in acute exacerbations of the disease and as prophylaxis against such exacerbations following surgery. Thus we continue its use, locally and orally, at time of operation.

Conclusions

From our study of the preceding cases we believe that the sulfonamides (and specifically sulfathiazole) are of definite value in conjunction with surgery in the treatment of acute osteomyelitis. They are of little value in the treatment of chronic cases, however, except in hastening remissions of acute exacerbations and in offering prophylaxis against such exacerbations following operation.

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BELIEVE SODIUM CARBONATE SHOULD BE GIVEN WHEN SULFADIAZINE IS USED

The findings of laboratory and clinical studies made by Dorothy Rourke Gilligan, M.S.; Solomon Garb, A.B.; Charles Wheeler, M.D., and Major Norman Plummer, M.C., A. U. S., New York, lead them to report in *The Journal of the American Medical Association* for August 21 that kidney damage and obstruction of the urinary tract as a result of treatment with sulfadiazine and acetylsulfadiazine are preventable by means of alkali treatment sufficient to maintain the urine neutral or slightly alkaline. They believe that sodium bicarbonate should be prescribed whenever sulfadiazine is administered.

RESUSCITATION OF THE NEWBORN

T. SCHLEY GATEWOOD, M.D.

Americus

The Georgia State Department of Public Health during the past twenty years has grown considerably. It offers varied services to the laity and to our profession. It keeps in constant touch with the health of our people, and through vital statistics can quickly tell you how the health conditions in Georgia compare with similar conditions elsewhere.

Thus, the infant mortality in Georgia continues to show a nice decrease but we are still too far above the infant mortality rate in the United States. In 1939 the infant mortality rate of the United States was 48 per 1,000 and the same year Georgia's rate was 58 per 1,000. We rather quickly think of the midwives and the large colored population, but the figures show that in our State the colored rate is lower than that of the United States, being 71 and 74 per 1,000 respectively.

Improvements are to be expected when each year science reveals new and better methods. In 1920 Georgia's infant mortality was 88 per 1,000 and it dropped to 57 per 1,000 in 1940. This shows a saving of life of 31 babies per 1,000. A splendid record. But we must never be satisfied else all progress ceases. Dr. McCord¹ blames our high maternal mortality on economic conditions in the South, but he also frankly accuses the doctors and midwives of some shortcomings.

We have tragic occasions to realize some newborns should have lived but died. The history of a typical case reveals a pituitrin or forceps delivery; the fetal heart was beating, but apnea was present, and continued until death ensued. Patience and watchful waiting might have saved a life. Sometimes when the family is upset and wanting results we doctors need for our patients some stalling methods comparable to those of the midwives, e.g., blowing in blue bottles, quilling them with snuff, etc. I have seen long labors terminated by the doctor cursing the patient and blaming her

for her shortcomings; rather beating the patient and family to the punch, an unjustified one, too, born of ignorance and excitement.

It is believed that too many babies die because of a poor technic of resuscitation. And there are too many cases where prematurity, syphilis, analgesics, pituitrin, and forceps cannot be blamed. Why babies breathe and cry at birth is an unsolved mystery, and we all appreciate that frequently an external stimulus such as spanking starts the needed bellows of the spark of life.

But here let us consider some of the causes of apnea and asphyxia requiring active resuscitation. Henderson² in 1939 wrote a bold paper attacking analgesics and stating that 30 to 60 per cent of babies delivered under analgesics were born asphyxiated and needed some method of resuscitation. Naturally such a statement aroused the painless obstetricians and recently one of his namesakes³ reviewed a thousand consecutive cases in which analgesics (mostly barbitals and copolamnie) were used and found that 90.6 per cent of the babies born when the mother is under the influence of analgesia, showed no evidence of clinical asphyxia, and concluded that when properly supervised and in the hands of those familiar with their use, analgesics per se do not increase the incidence of asphyxia. Lund⁴ of the University of Wisconsin made a study of the etiologic factors concerned in 2,000 deliveries. His report is most interesting. In summarizing he brought out that prenatal complications "increased asphyxia from 11 per cent in the uncomplicated to 26 per cent in the complicated cases" prematurity was the greatest single factor in the series, and was most dangerous when combined with analgesic drugs where as high as 70 per cent asphyxia was found.

Breech presentations were associated with double the incidence of asphyxia found in cephalic presentations, the figures being 27 per cent and 14 per cent, respectively. Only when the first stage was over thirty hours was there a marked increase in asphyxia. A second stage of over one and one-half hours was followed by a progres-

sive increase in asphyxia. Spontaneous deliveries showed a rate of 10 per cent asphyxia while operative deliveries were followed by 25 per cent asphyxia.

Methods of Resuscitation

The general idea in the past has been that the apneic or asphyxiated newborn needed some external stimulus to excite him to gasp for air and initiate respiration. This idea accounts for spankings and hot and cold water dippings, and more recently tickling of the hard palate⁵ Then the pharmacologists and physiologists began discovering drugs that would stimulate the respiratory center. Here I pause to condemn these drugs for they are powerful drugs: the psychiatrists use them to cause convulsions in adults.

Two well known clinicians⁶ working at Johns Hopkins Hospital made controlled animal studies with alpha-lobeline, metrazol, and coramine; they concluded that these drugs "have no place in the treatment of apnea at birth because their effect on respiration is nil in the presence of anoxia" and "that convulsions were observed in over one-half of the experiments, but they occurred only after complete reoxygenation of the blood." Now for the most physiologic method we turn to artificial respiration, remembering that what the child needs is oxygen. Respiration should start 10-20 seconds after birth. If it does not commence within one minute abnormal apnea or asphyxia is present and anoxemia rapidly increases. Blood studies⁷ show that the fetal arterial blood has a lower oxygen saturation than the venous blood of the mother. So the newborn really needs oxygen. It has been shown that the fetus in utero goes through the mechanical act of respiration, the amniotic fluid being inspired and expired from the lungs⁸. After delivery it becomes mandatory that a gaseous medium replace this fluid medium. We have all found at one time or another a most tenacious mucus in the oropharyngeal cavity and it is usually customary to remove this by introducing the finger into the cavity. A more thorough job can be accomplished by following this procedure with a large rubber ear bulb syringe to aspirate the

epiglottis region. Even after this removal of obstructive mucus material there sometimes remains a plug of mucus in the trachea that cannot be reached except by an intra-tracheal catheter. Mouth-to-mouth artificial respiration is a very good way of introducing oxygen into the fetal lungs if the pressure does not exceed 20 cm. of water. However those cases that have their trachea obstructed by mucus will only get a belly full of air rather than oxygen in the lungs. I have seen obstetricians use mouth-to-mouth respiration unsuccessfully, then in desperation allow a tracheal catheter to be inserted; after a few gentle puffs into the infant's lungs respiration would be initiated. And tragic but true, I have seen mouth-to-mouth artificial respiration given until every spark of life disappeared. A lifeless small bundle with marked abdominal distention remained. Then a catheter was placed in the stomach and the distention disappeared; the larynx was exposed and showed a plug of mucus, and at autopsy a section of lung was dropped into water only to sink to the bottom.

When the newborn infant arrives it behooves us to remember that we are entrusted with a delicate mass of new cellular structure which has existed in a warm, gentle, environment for the past nine months and has now had the shocking experience of passing from a fluid medium into a gaseous one. Normally respiration should occur without any outside aid but to be of some assistance at this critical change of environment we should clear the air passages as gently as possible and if the newcomer appears dazed by his flying wedge trip, stimulate him gently by thumping the feet or gently patting the buttock, and by all means quickly offering the warmth to which this guest has been accustomed. Usually external stripping of the trachea and clearing of the mouth of mucus is sufficient, but in the more resistant cases where apnea persists for over a minute a laryngoscope (Flagg) should be introduced and under direct vision a small stiff rubber catheter can easily be inserted into the trachea. Often this alone opens the air passage and respiration is initiated, but if not, air is

blown into the lungs, being careful not to exceed a pressure of 20 cm. of water, thus preventing possible overdistention and rupture of the alveoli. This introduction of oxygen into the lungs is exactly what the infant needs. When this method fails one can only look to the autopsy room for the cause of its failure. There are expensive apparatus on the market but none can replace such a simple and physiologic way.

In summarizing, first let us remember that the careful and judicious conduct of labor will do more to save babies than all methods of resuscitation; and second, that the newborn infant needs gentleness, warmth, air passages free of obstruction, and oxygen in the lungs.

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PRESCRIPTIONS FOR NARCOTIC DRUGS

Prescriptions for narcotic drugs may be issued only by physicians, dentists, veterinary surgeons, or other practitioners currently registered with the Collector of Internal Revenue to deal in narcotics; may be issued only for legitimate medical needs. If not for legitimate medical needs it is not a prescription within the meaning and intent of the Harrison Narcotic Law.

The duty of properly preparing a narcotic prescription is upon the practitioner. A corresponding liability rests upon the druggist who fills it.

The prescription may be either typewritten, or written in ink or indelible pencil. It may be prepared by a secretary or other agent, but the practitioner is required to sign. The signature of the practitioner must be his legal signature, such as J. H. Smith, John H. Smith, or John Henry Smith, but not initialed or merely "Smith."

The prescription must bear the full name and address of the patient, and the name, address and registry number of the prac-

(Continued on page 312)

THE PRESIDENT'S PAGE

To Whom It May Concern:

Does it concern the doctors of Georgia that a bill has been introduced into the U. S. Senate, and House of Representatives, that places the practice of medicine in the United States under a dictator?

Does it concern the doctors of Georgia that should Senate Bill No. 1161 and House Bill No. 2861 be enacted into law, the Surgeon General of the U. S. Public Health Service would have the authority to tell all doctors participating in the sickness insurance program just how many and how few patients they would be permitted to treat, and how much they would be permitted to receive for their services?

Participation in the sickness insurance program (to quote from Medical Economics for August, 1943) "would not be compulsory by statute but would, for most practitioners, be compulsory in effect if they expect to continue to eat."

The Surgeon General of the U. S. Public Health Service would have in his power to designate what specialist should be called for special work, and the patient would not have the choice of a specialist except through the assent of the attending physician.

The Surgeon General would have the aid of a National Advisory Medical and Hospital Council of sixteen members appointed by *himself*.

Payment for medical services would be by the Unified National Social Insurance System from funds secured by taxing employers 6 per cent on wages and salaries paid and employes 6 per cent of wages and salaries received. These taxes to start on Jan. 1, 1944. Add this 12 per cent tax to your already heavy taxes and consider well



this whole socialistic and communistic set-up as proposed by this Wagner bill.

This bill will be fought by organized medicine, both in the Senate and in the House. Some doctors who know something of the socialistic trends in our government say this bill has a chance of passing! The American Federation of Labor is already on record as favoring it.

Are we as Georgia doctors sufficiently interested in our own welfare to try to keep medical affairs in the hands of medical men? If so, send for a copy of this bill, study it, and if you favor it, say so; if you are opposed to it say so, and *wire* your senator and representatives in Washington to oppose it.

W. A. SELMAN, M.D.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

SEPTEMBER, 1943

**ARMED FORCES MUST HAVE 6,000
MORE PHYSICIANS BY
JANUARY 1***

The armed forces must have 6,000 additional physicians by January 1, 1944, the *Journal of the American Medical Association* reports in an editorial in its August 7 issue. The *Journal* says:

"At a conference of the Directing Board of the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians, held on July 31, with the War Participation Committee of the American Medical Association and in the presence of Mr. Paul V. McNutt, chairman of the War Manpower Commission, and representatives of the Army and Navy medical departments and the Public Health Service, it became apparent that the medical profession must produce toward the winning of the war an additional six thousand physicians for the armed forces before January 1, 1944. Pursuant to a realization of this objective a directive has gone to the generals in command of the various service commands authorizing them to induct into the service physicians between the ages of 38 and 45 who have been declared available by the Directing Board of the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians and who are otherwise subject to Selective Service.

"The needs of the armed forces are real. The members of the War Participation Committee raised with the representatives of the various governmental agencies all the questions that have from time to time challenged the need; the challenge seems to have been met effectively. Indeed, the intimation was made clear that the needs of the armed forces will be met by specific regulations of the Selective Service Administration or the enactment of necessary legislation if required. All physicians up

to 45 years of age who have been indicated as available have therefore placed on them now the responsibility for an immediate decision as to their enlistment with the armed forces. The need is so positive that questions of essentiality of men in positions of teaching and research and in industrial medicine are likely to be rigidly reviewed in the near future with a view to extracting from civilian life every one that can be spared.

"As the war continues and intensifies, new needs for the services of the medical profession become apparent. An army in motion and one engaged in the kind of aggressive combat that now concerns our armed forces needs physicians in even greater numbers than have heretofore been demanded. Many thousands of interned aliens and prisoners are now the burden of the United States and must be given medical care.

"If there is any physician who still hesitates under these circumstances, he should realize the added advantage to him of accepting now the commission that is proffered. Should it become necessary in the near future, as seems quite likely, to enlist new activity by the Selective Service Administration and the Officers Procurement Service to bring in the six thousand physicians that are so certainly required, those recruited by that technic will inevitably begin their service with the minimum commission that is offered — namely, that of first lieutenant. Until that technic is installed, the men of special competence and of years beyond those of the recent graduate have the assurance of careful consideration and a commission more nearly in accord with age and experience.

"The call here made has the approval of the Directing Board of the Procurement and Assignment Service and of the War Participation Committee of the American Medical Association. The medical profession may well be proud of the fact that it has been the only group given, by directive of the President, the responsibility of maintaining service in civilian life and at the same time supplying the needs of the armed forces. Let us not fail in meeting fully the trust that has been placed upon us."

*This editorial is reprinted at the request of the A.M.A.

EMORY'S CORPSES

The mortality rate in Emory's freshmen medical classes has been extremely high for the past two decades: approximately 200 per cent higher than the national average for failures of freshmen medical students. And Emory's mortality rate for freshmen was included in the national average when computing failures for freshmen medical students! Indeed, Emory's failures for *freshmen* medical students exceed by 49 per cent recent *four-year* failures, illnesses and financial reverses experienced by the medical students of the United States and Canada. And again it must be remembered that Emory's figures were included in these averages! At Emory 24.1 per cent of the *freshmen* medical students are flunked outright, and another 11 per cent are "conditioned" and required to go to Michigan for extra work before final promotion.

What is wrong with Emory's medical school? Surely a school which is eighty-nine years old has some good qualities. And surely many members of the school's faculty of today are fine men and women and are good teachers in every respect. But just as surely there are at Emory today administrators and teachers whose policies and practices cannot be accepted as "the American way of doing things," since such policies and practices are at variance with the other medical schools of this country, and since it cannot be shown by Emory that these policies and practices have produced extraordinary results in medical education.

The greatest trouble at Emory's medical school is in its anatomy department, but necessarily equal blame must be directed towards Emory's administrative staff. At least Emory's present administrators and problems were discussed at length at the meetings of the House of Delegates of the Ninety-fourth Annual Session of the Medical Association of Georgia, held in Atlanta May 11-14, 1943. A synopsis of that discussion will be found in the August, 1943, number of this JOURNAL, under the heading "Proceedings of the House of Delegates, Ninety-fourth Annual Session."

Examples of Emory's policies and practices in its medical school of today follow: Emory began its accelerated program in

medical education June 15, 1942, at which time a new freshman medical class was admitted. Sixty-eight young men qualified for admission to this class, all of whom had three or more years of premedical work. The temperature at Emory and Atlanta was high during the summer of 1942, perhaps higher than usual, but Emory's practices had to function nonetheless. Approximately six weeks after these young men began their earnest study for a medical career, twenty-two of them were called from their class and told by the associate professor of anatomy that they were not doing well in their work, that they must do better or else be failed outright. In another six weeks three of them were notified by the dean that they had failed, that they should seek other fields of endeavor. Who among Georgia physicians learned sufficient medical terminology in six weeks to begin a medical career? Who among Georgia physicians believes that the administrators and teachers of any school, whatever be its name, can determine in six weeks if a boy or girl with three years or more of premedical work is not suited to be a doctor of medicine, or anything else that he or she chooses to be?

August 27, 1943, was a memorable day for freshmen students in Emory's medical school, and the events of that day furnish another example of the *usual* practices in the school's anatomy department, practices long subscribed to by Emory's administrators for the reason such practices have been permitted to continue over a period of two decades. On that day the professor of anatomy broke faith with the freshmen. He forgot the promise he made them in the beginning of their year's work; namely, that he would not give them written examinations unless they had been notified in advance of such written examinations. He forgot that they — 69 young men and 1 woman — had taken him at his word. He forgot the books of the *New Testament*, and particularly verse 12 of chapter 7 of Matthew.

Emory was founded in the South and no doubt its purpose was to serve the people of the South. In any event, its traditions and character were formulated for the most part by Southern people. But adherence

to Southern traditions and Southern character no longer obtains in Emory's medical school. In fact, examination of Emory's medical faculty and its present policies and practices reminds one of Henry Grady's parable of a Georgia funeral, which is quoted below:

"The corpse was a poor, one-gallus fellow. They buried him in the midst of a marble quarry; they cut through marble to dig his grave, and yet a little tombstone they put above him was from Vermont. They buried him in a pine forest, yet the pine coffin was imported from Cincinnati. They buried him within touch of an iron mine, yet the nails in the coffin and the iron in the shovel that dug his grave were imported from Pittsburgh. They buried him by the side of the best sheep-grazing country on earth, yet the wool in the coffin bands and the bands themselves were brought from the North. They buried him in a New York coat and in Boston shoes, in a pair of breeches from Chicago and a shirt from Cincinnati. The South didn't furnish a thing for that funeral but the corpse and the hole in the ground."

All of which suggests and actually means, so far as Emory's medical school is concerned, that of the approximately one of every four freshmen medical students failed there during the past two decades, the South did not furnish anything for the funerals of the corpses (the 334 failed boys) except a few buildings built of Georgia marble. Most certainly, if Emory's policies and practices had been different — the *American* way — Georgia and the entire South would have more physicians today, physicians that are sorely needed now.

YOUR GOVERNMENT'S HIGHEST HONOR

Your government needs physicians now as never before. The highest honor that can be offered you for active participation in the war effort, which grows larger every day, is a commission in one of the medical services: the Army, the Navy or the Public Health Service. Such commissions are available to every physician who can qualify for them.

Georgia physicians have responded nobly to the war effort. But the war is not as yet at an end. More physicians must be made available for duty with the armed forces. It may sound encouraging to see the headlines in the papers which state that one million soldiers have invaded Italy, but how many people stop to think of the num-

ber of physicians required with that army of one million men. The minimum figure is no less than 6,500; and, of course, this number does not include all of those behind the lines.

A recent editorial in *The Journal* of the American Medical Association states that another 6,000 physicians from civilian life must be made available for duty with the armed forces by Jan. 1, 1944. Remember, this figure does not include interns and residents from hospitals! Georgia must furnish its share of this group of 6,000; and there must not be quibbling about the problem. *Your* government, through its authorized agencies, asks *you* to cooperate in the program to end the war. Are *you* willing to forego the usual pleasures and conveniences and *help* make *your* government stand solid on its foundation, a foundation that was begun more than 150 years ago?

PRESCRIPTIONS FOR NARCOTIC DRUGS

(Continued from page 308)

tioner; must be dated as of the day on which issued.

Narcotics for "office use" and for emergency kits are procured through order forms. Retail druggists may fill order forms of practitioners, in quantities not exceeding one ounce at any one time, with aqueous or oleaginous solutions, in which the narcotic content does not exceed a greater proportion than 20 per cent of the complete solution, to be used in legitimate office practice. Narcotics for emergency kits should be procured on order forms from wholesale dealers.

The furnishing of narcotics pursuant to telephone requests, or advice, of practitioners is prohibited, whether prescriptions covering such orders are subsequently received or not, except that in an emergency a druggist may deliver narcotics through his employee or agent pursuant to a telephone order, provided the employee or agent is supplied with a properly prepared prescription before delivery is made, which prescription shall be turned over to the druggist and filed by him as required by law.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1943-44

President—Frieda Grefe, R.N., Savannah.

First Vice-President—Sister Cornile, Atlanta.

Second Vice-President—Mrs. Mae M. Jones, Milledgeville.

Secretary—Mrs. Esther Watts, Columbus.

Treasurer—Jane Van De Vrede, Atlanta.

Executive Secretary—Durice Dickerson, R.N., Headquarters, 131 Forrest Ave., N. E., Atlanta; Tel. WA. 8911

President—Georgia League of Nursing Education, Ruth Babin, Atlanta.

President—Georgia State Organization of Public Health Nursing, Vera Mingledorff, Griffin.

Chairman, Private Duty Section, G.S.N.A.—Mrs. Mildred Pryse, Atlanta.

ANNOUNCING ANNUAL BUSINESS SESSIONS

DURICE DICKERSON, R.N.
Executive Secretary
Atlanta

Five nursing groups in Georgia will convene jointly for their annual business sessions on September 26, 27, 28, at the Henry Grady Hotel, Atlanta. Nursing Groups participating are: 37th Annual Session, Georgia State Nurses' Association and her Private Duty Section; the 17th Session of the Georgia League of Nursing Education; the 18th Session of the State Organization for Public Nursing; and the 2nd Annual Meeting of the State Nursing Council for War Service.

Miss L. Louise Baker, Assistant Executive Officer, Nursing Division, Office for Emergency Management, War Manpower Commission, will be a national speaker on the 7:30 P.M., Sunday, September 26, program of the State Nursing Council. Miss Baker will discuss Procurement and Assignment Service and other questions pertaining to emergency work. Her address will attract a large attendance of lay persons as well as members.

U. S. Cadet Nurse Corps

The entire business program will revolve around topics of vital concern to the War Service. State and Local Nursing Council's responsibilities will be further outlined. The U. S. Cadet Nurse Corps will again be discussed and promotion plans for this program made. It is reported that all 17 accredited schools of nursing in Georgia will qualify for the Cadet Nurse training program. Refer to page 285, August issue, JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA, for details of the Cadet Nurse Corps Program.

New Districts Organized

Three new nursing districts have been organized this year in order to better distribute the load of nursing activities. There are now fourteen well established districts in Georgia which, in turn, have organized district nursing councils for War Service. These Councils promote: 1. Recruitment programs, both for student nurses as well as for military service; 2. Procurement

and Assignment Service; 3. return of retired nurses for emergency work; 4. assist with organizing and teaching classes in home nursing and nurses' aides; and 5. public information programs. There are also several County Nursing Councils that are functioning at full speed. To these councils much credit is given for the excellent contribution Georgia nurses are making to the total war effort.

ONE HUNDRED PER CENT PROFESSIONAL MEMBERSHIP CERTIFICATES, will be awarded at the annual meeting to agencies whose nursing staff hold 1943 membership. Hospitals, public health agencies, clinics, doctors' offices, etc., are requested to check their nursing staffs and report those holding 100 per cent membership to State headquarters, so that a certificate can be presented—*Priorities For Nurses*—This pamphlet has recently been revised and all consumers of nursing services will want to secure a copy, since it is the general guide to be used in the procurement and assignment of nurses. Write State headquarters for your copy.

District Presidents

Following is a list of district presidents. Doctors and all persons interested in good nursing service are requested to cooperate with and assist your local or district councils, in order that adequate nursing service can be supplied to all communities in Georgia.

1. Geraldine Mew, St. Joseph's Hospital, Savannah.
2. Mrs. Marlene T. Gardner, P. O. Box 293, Moultrie.
3. Mrs. Mae Luttrell Yawn, 2719 Tenth Avenue, Columbus.
4. Bessie Rowe, Carrollton.
5. Carolyn Adkins, 2080 N. Decatur Road, N.E., Atlanta.
6. Mary Johnstono, 197 Belmont Avenue, Macon.
7. Kathryn Pendley, 403 S. Broad Street, Rome.
8. Mrs. Ida Osterhout, 1009 Egmont Avenue, Brunswick.
9. Margaret Currie, P. O. Box 508, Gainesville.

(Continued on page 315)

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

FACTS ABOUT TYPHUS FEVER

Typhus fever, a disease as old as the ages, needs no introduction. The many historic and present-day accounts of this disease place it at the top of the list in the tragic destruction of large populations throughout the world. Glancing back to World War I, typhus fever left its path of destruction by killing hundreds of thousands, even millions, of people in war-torn countries, such as Serbia and Russia. The disease follows wars, famines, and miseries of all kinds which involve overcrowding, filth and privation. Although the reports of typhus fever epidemics are rather meager from the present war areas of the world, the disease is undoubtedly again on the rampage, shaping the destiny of armies and civilian populations.

This virulent form of typhus fever is known as *classical, European or epidemic* typhus. It is transmitted from man to man by the body louse. The causative organism is *Rickettsia prowazeki*. The disease has not occurred in epidemic form in the United States since the passing of the nineteenth century, during which it occurred in small epidemics in our large eastern seaport cities of Boston, New York, and Philadelphia. The disease was apparently brought into the United States by immigrants, as the disease was usually confined to their living quarters.

The fatality rate of the epidemic form of typhus varies from 10 to 80 per cent in different epidemics, whereas the murine or flea-borne typhus fever, which is now prevalent in the United States, has a fatality rate of about 3 per cent.

Murine typhus fever is transmitted from rat to rat and accidentally to man, principally by rat fleas. The causative organism is *Rickettsia mooseri*. It has been suggested that murine typhus fever may also be transmitted from man to man by body louse, reaching the virulent form of epidemic typhus. Murine typhus fever not only exists in the United States, but has been observed in man and the animal reservoir (rat) in ports and large cities throughout the world.

Murine typhus fever is comparatively a new disease in the United States. Speculation has placed this disease as existing in the United States along the Gulf Coast since the earliest inhabitants. The disease was probably imported from Latin American countries. The first cases in the Southeastern States were reported by Paulin in 1913.¹ Since this time the number of reported cases has increased rapidly each year in the United States, especially in the South Atlantic and Gulf Coast States. For the five-year period, 1937 through 1941, a total of 12,354

cases of typhus fever were reported in 32 states and the District of Columbia. Eight southern states; namely, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas, reported 11,716 cases or 94.8 per cent of the total number of cases reported for the five-year period. Provisional reports for the year 1942 show that of the 3,700 cases reported for the United States 95.6 per cent were from the eight South Atlantic and Gulf Coast states. From these figures we may safely assume that the typhus fever problem at the present time in the United States is located in eight states along the South Atlantic and Gulf Coasts. Of this group of states, Georgia has reported each year more cases than any other state with the exception of 1942 in which Texas, according to provisional figures, led the nation in the number of reported cases.

In analyzing the geographic distribution of typhus fever in Georgia, it is revealed that for the five-year period, 1937 through 1941, 92 per cent of the total number of cases were reported south of an imaginary line drawn through Augusta, Macon, and Columbus. The largest number of typhus fever cases reported in Georgia was in 1942. This increase in cases might have been influenced to some extent by the mass migration of people from non-war areas of Georgia and adjoining states into war areas of Southern Georgia, thereby resulting in more people becoming exposed to the disease. Typhus cases reported in this section of the state have been widely distributed among the many counties with the greatest incidence possibly in the southwestern part. No definite explanation can be presented to explain the high incidence of the disease in the southern part of the State as compared with the incidence in the northern part. Observations and studies indicate that, insofar as the rat host and rat flea vector are involved, climatic conditions, food supply, and rat harborage in building structures are, in general, more favorable for the propagation of rats and rat fleas in the southern part of the State than in the northern part. Observations have further indicated the presence of greater Norwegian rat infestations in cities and towns of South Georgia than in North Georgia.

Typhus fever in Georgia reaches its highest incidence during the summer months, principally July, August and September, and the lowest during the months of February and March. In this connection, studies indicate that in general the rat flea indices conform to the seasonal variation curve for typhus fever. This fact in all probability influences the incidence of typhus fever as a result of the increased flea infestation

of buildings during the summer over the winter months of the year.

Epidemiologic investigations of typhus fever cases in Georgia indicate that the disease is primarily a problem of cities, towns, and villages rather than sparsely settled areas. These investigations further indicate that the disease is contracted more often by persons associated with business establishments than residences. This fact is partly substantiated, at least, by the large rat and flea infestation generally found in business establishments, especially those dealing in food.

The Georgia Department of Public Health was the first state health department to establish a typhus fever control service based on a scientific approach to the problem. Control measures are aimed at the destruction of the rat and rat ectoparasites. This is accomplished by correlating epidemiologic data on cases reported by physicians to determine the possible foci of infection and applying rat control measures to those areas pre-determined to be the foci of infection.

Rat control measures consist of: (1) "Vent-Stoppage," a permanent and inexpensive method of preventing the ingress of rats into buildings. This simplified form of rat proofing was originated by the Georgia Department of Public Health and involves briefly, the closing of openings called "vents," in the exterior walls of buildings with materials consisting of sheet metal, concrete, wire cloth and masonry; (2) rat extermination by means of poison bait and traps. This control measure when applied alone is a temporary measure and a never ending job. Its effective use, however, is in exterminating rats blocked in buildings that have been "vent-stopped" and (3) municipal refuse collection and disposal. This control measure results in permanent benefits when effectively carried out, as it is of major importance in reducing the rats food supply.

The Typhus Fever Control Service renders aid to communities in an advisory capacity in organizing local typhus fever control programs. The communities defray the cost of labor and materials. These services consist of conducting educational programs, making detailed reports of epidemiologic and engineering investigations, training local personnel in the application of rat control measures, and rendering general supervision over the local control programs.

At the present time the Typhus Fever Control Service is rendering all the available services possible to war areas in which typhus fever is prevalent in order to protect the personnel in our armed forces and civilians working in war industries.

Since the establishment of the State Typhus Fever Control Service in 1937, many of our Georgia cities and towns have inaugurated typhus fever control programs. Some of our cities

and towns have established permanent control programs on a par with other permanent municipal activities. It is through this effort on the part of our local communities that we believe progress is being made to control murine typhus fever in Georgia.

ROY J. BOSTON, *Engineer*,
Division of Preventable Diseases.

REFERENCES

1. Paullin: South. M. J. 6: 36-43, 1913.

GEORGIA STATE NURSES' ASSOCIATION ANNOUNCING ANNUAL BUSINESS SESSIONS

(Continued from page 313)

10. Mrs. Olive Barbin, 957 Russell Street, Augusta.
11. Mrs. Hazel Brittain, Athens General Hospital, Athens.
12. Mrs. Alene Moseley, Vice-President, N. Dooly Street, Montezuma (acting president).
13. Mrs. Willis Lang, 1701 N. Patterson Street, Valdosta.
14. Alma Galbreath, Lyons.

Local Arrangements Committee

Mrs. William Pryse is chairman of the Local Arrangements Committee for the annual meeting. Address her at 131 Forrest Avenue, N.E., State Headquarters—Telephone WALnut 8911. Mrs. Pryse is also executive secretary of the State Nursing Council for War Service, and attended a special two-day conference in Chicago, September 9-10, to hear discussions on Procurement and Assignment Service as outlined by the Nursing Division, War Manpower Commission.

Nursing Service Is Essential

A large attendance is expected at the annual meeting in Atlanta. Nursing is definitely classified as essential service; therefore it is of paramount importance that this annual business session be held with good attendance. Social functions will be omitted. All state committees as well as district and alumni associations are requested to make annual reports of activities, and many recommendations for the 1944 program of work are expected to be presented.

Alumni Associations

There are twenty-three active alumni associations in Georgia. A special appeal is being made to them to support the professional program by attending and reporting activities to the annual business sessions. One hundred per cent membership certificates will be presented to Districts and Alumni Associations showing that all eligible members are enrolled.

WOMAN'S AUXILIARY

- President—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.
- President-Elect—Mrs. W. T. Randolph, Winder.
- First Vice-President—Mrs. Ralph Fowler, Marietta.
- Second Vice-President—Mrs. L. W. Williams, 135 East 45th St., Savannah.
- Third Vice-President—Mrs. Richard Binion, Milledgeville.
- Recording Secretary—Mrs. Chas. Usher, 6 East Liberty St., Savannah.

: OFFICERS 1943-44

- Corresponding Secretary—Mrs. H. H. Askew, 1329 Springdale Road, Atlanta.
- Treasurer—Mrs. Lucius N. Todd, Rural Delivery No. 2, Augusta.
- Historian—Mrs. W. W. Puett, Norcross.
- Parliamentarian—Mrs. Lee Howard, 625 East 44th St., Savannah.
- Press and Publicity—Mrs. J. Harry Rogers, 1325 Peachtree St., N.E., Atlanta.

MRS. BRAWNER APPOINTED

Mrs. James N. Brawner, Sr., of Atlanta, has been appointed chairman of the southeastern division of the war service committee of the Woman's Auxiliary to the American Medical Association, according to an announcement made by Mrs. Rollo K. Packard, of Chicago, general chairman of the committee. Mrs. Brawner is one of the most enthusiastic workers for the Woman's Auxiliary and her friends over the State and the South will learn with keen interest of this new honor that has been conferred upon her.

Mrs. Brawner, who was the first president of the Woman's Auxiliary to the Medical Association of Georgia, is honorary president for life of the state group. She has served as president of both her local auxiliary, that of Fulton County, and of the Woman's Auxiliary to the Southern Medical Association. In addition to being chairman of the war service committee for the southeast she also holds that chairmanship in the county, State and southern groups. Mrs. Brawner is not only busy with Auxiliary work but she finds time to take part in many other activities, being prominent in the Atlanta Woman's Club, the First Ponce de Leon Baptist church, and in garden club and D. A. R. circles.

AUXILIARY CREDITS TO AWARD OF CUP

(Mrs. James N. Brawner Trophy)

- An Advisory Committee from local Medical Society, and *send name or names to State President 2½
- Full force of active chairmen (or as many as membership allows) to correspond with State and National Auxiliaries 2½
- State and National dues paid by March 15th; dues to be accompanied by properly filled out membership and receipt blanks 5
- At least three items of publicity sent to State Publicity chairman each year (District and County Publicity Chairman send notices in regularly) 5
- Program plans for year's work made into a *Year Book* form and a copy sent to the State President 5
- One or more Health Education Programs during the year open to the public or to representatives of lay organizations. (Number of meetings and approximate attendance) 10

- Report active participation in some projects for community betterment (annual examination of school children; immunization drives; assisting in Woman's Field Army for the control of cancer, etc.) 10
- Providing speakers on health subjects for lay organizations (Parent-Teachers, Woman's Clubs, Church Groups, etc.) Report number 5
- Number of members who served as Health Chairman in other organizations 5
- Increase in Hygeia subscriptions. (How many over last year) 5
- Gift of Hygeia subscriptions to local library; schools; hospital reception rooms; nurses dormitories, etc. (Give number) 5
- Increase in membership (over last year) 5
- Report of year's work sent to the State President by April first 2½
- Delegate representation at annual State Convention and *Report* of year's work presented. (Names of delegates and alternates) 2½
- (A) Exhibit of Scrapbook at State Convention 5
- (B) Exhibit of Year Book at State Convention 5
- Exhibits of highlights of year's work, such as: posters, charts or other means. (Must be the work of members and originality counts) 10
- Donation to State Student Loan Fund 5
- Observance of Doctor's Day, March 30th 5

MARGUERITE WHITE

The Woman's Auxiliary to the Medical Association of Georgia lost one of its most beloved members when Mrs. J. Bonar White, former president, passed away on July 26 at her home in Atlanta. Funeral services for Mrs. White, which members of her Auxiliary, that of Fulton County, attended in a body, were held on July 28 at the Sacred Heart Catholic church in Atlanta, following which she was laid to rest by the side of her late husband in Abbeville, S. C.

Not only in Georgia but throughout the nation wherever there are Auxiliaries, Marguerite White, as she was known to her friends, was beloved. Until illness forced her to give up six years ago she had been untiring in her efforts to further the Medical Auxiliary and its works. She had served not only as president of the Fulton County and the Georgia groups, but also as president of the Woman's Auxiliary to the Southern Medical Association and as chairman of public relations, third vice-president and first vice-

president of the Woman's Auxiliary to the American Medical Association.

In addition to her Auxiliary work, Mrs. White took an active part in affairs of the Sacred Heart Catholic church, of which she was a devoted member and had been prominent in P.-T. A. circles in Atlanta and also served as president of the Georgia Tech Woman's Club. She was a member of the Atlanta Woman's Club and the Shakesperian Club of this city. During the early stages of her long illness, Mrs. White continued her Auxiliary work but for the past year and a half her condition had been so critical that she was forced to give it up. She and her mother, Mrs. John Brickman, resided on Penn avenue in Atlanta.

It will be long before the Georgia Auxiliary has another member who is as loyal, capable, untiring, and beloved as Marguerite White and she will be sincerely missed.

PROGRAM APPROVED

The advisory committee for the Woman's Auxiliary from the Medical Association of Georgia approved the auxiliary's program for the year as presented by the president, Mrs. Olin S. Cofer, of Atlanta, at a recent meeting held at the Academy of Medicine in Atlanta. Mrs. Cofer stated that the theme for the year is "Health for Defense" and it will stress nutrition, tuberculosis, cancer, venereal diseases and guidance for children and youth. The Auxiliary feels that health education is its most urgent responsibility, not only for the present war period but for future generations. Dr. James N. Brawner, of Atlanta, chairman; Dr. Olin S. Cofer, Dr. Eustace Allen and Dr. C. D. Bowdoin, all of Atlanta, unanimously approved the program at the meeting, which was also attended by members of the executive board of the Woman's Auxiliary. Following the meeting, Mrs. Cofer entertained the guests at a beautifully appointed tea.

NEWS ITEMS

Dr. Thomas H. Stewart, formerly of Cochran, announces his association with Coleman's Sanitarium, at Eastman, for the practice of medicine and surgery.

Dr. T. E. Bradley, Fitzgerald, spent several months on a Florida beach resting and recuperating from overwork and has resumed his practice of diseases of the eye, ear, nose and throat.

Dr. W. P. Coffee, Fitzgerald, after taking post-graduate study at the New York Polyclinic Medical School and Hospital in New York City, has returned and will be in his offices in the Five-Story Building to continue the practice of medicine.

Dr. John A. Hembree has purchased a lot and building in Pearson which will be remodeled and equipped for use as a clinic.

Major Margaret D. Craighill, the first woman medical officer in the United States Army, spoke at a conference of the medical officers of the Fourth Corps Service Command at the Ansley Hotel, Atlanta, August 5.

Dr. Walter W. Daniel and Dr. John C. Ivey announce the removal of their offices to 743 West Peachtree Street, N. E., Atlanta.

Dr. Don F. Cathcart announces the removal of his office to 810 Doctors Building, 478 Peachtree Street, N. E., Atlanta.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, September 2. The scientific program consisted of a "Symposium on Hypertension"—"Medical Aspects of Hypertension" by Dr. Eustace A. Allen; "Eyegrounds in Hypertension," Dr. Alton V. Hallum.

Titles of articles published in the September 2 issue of The Bulletin of the Fulton County Medical Society included, "Atlanta Must Have an Affiliated Hospital Unit for Civilian Defense"; "President's Message" by Dr. George W. Fuller; "Health of the Atlanta Public Schools," Hon Willis A. Sutton, superintendent of schools; "A Review of Health of Atlanta School Children," "Health Department—City of Atlanta, Statistical Report," "Eyes of the School Child," Dr. Alton V. Hallum.

Dr. R. L. Sanders, Memphis, Tenn., will speak before a meeting of the Fulton County Medical Society, Atlanta, October 21 on "Some Surgical Phases of Gall-bladder and Common Duct Problems." The lecture will be illustrated with lantern slides. On October 22 he will speak at the Sheffield Cancer Clinic, Georgia Baptist Hospital, on "Cancer of the Colon." To be illustrated with lantern slides.

A. J. Ayers, M.D.

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OF THE

MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

VOL. XXXII

Atlanta, Georgia, October, 1943

Number 10

VIRUS PNEUMONIA

CHAS. B. FULGHUM, M.D.
Milledgeville

During the spring and summer of 1942 there were admitted to the Baldwin Memorial Hospital at Milledgeville, Georgia, ten patients with atypical pneumonia. After clinical, laboratory, and x-ray studies it became apparent that this was "acute atypical" or "virus type" pneumonia. The purpose of this communication is to report the occurrence of this disease in East Central Georgia, and to call attention to a clinical entity which probably is still not well recognized outside the medical centers of this State.

Definition

Virus pneumonia may be defined as an "interstitial bronchopneumonia, not usually accompanied by secondary bacterial invasion, and characterized by bradycardia, headache, dry cough, low or normal white count, and failure to respond to sulfonamides."¹⁰

Etiology

Although the etiologic agent is not known the term, "virus pneumonia," has come into common usage because no bacterium has been associated with this disease, and because of its epidemiologic, pathologic, and clinical resemblance to certain pneumonias known to be due to filterable viruses.³⁰ Furthermore, when etiologic agents are isolated from pneumonias of this type they are found to belong to a related group of viruses.¹⁰

Psittacosis was the first pneumonic disease from which a virus was isolated.⁴ Cutting Favour¹⁰ suggested that atypical pneumonia may be due to a virus of the psittacosis group which has become fixed in man. Dyer, Topping, and Bengston⁸ isolated a

rickettsia from the spleen of a fatal case. Eaton, Beck, and Pearson⁹ recovered a virus related to the psittacosis virus from the lungs of a fatal case. Harrop, Rake, and Shaffer¹⁷ reported an epidemic of atypical pneumonia due to the virus of lymphogranuloma inguinale. Stickney and Heilman³² isolated a virus from a case thought to be due to exposure to chickens and pigeons and suggested that barnyard fowl might carry this virus.

Pathology

At autopsy the lungs show areas of deep red moist consolidation. The bronchi and bronchioles are filled with purulent material. Microscopically the solidified areas show thickening of the interalveolar septa. The alveoli are filled with an exudate of mononuclear cells, red blood cells and serum. There appears to be much edema. Polymorphonuclear cells, present in the bronchiolar exudate, are not found in the alveolar exudate.¹⁹

This pathologic picture is not characteristic of virus pneumonia alone. It is, rather, the picture of interstitial bronchopneumonia and may be produced by the known viruses such as influenza, psittacosis, vaccine, and lymphogranuloma, or by virus and bacterial infection.^{24, 25} Chickenpox pneumonia, uncomplicated, may produce it.³³ Excessive radiation of the lungs may cause a similar picture.³⁴

Clinical Considerations

In case and epidemic reports, and in articles calling attention to this disease, the clinical aspects have been discussed exhaustively.^{1, 2, 3, 5, 6, 7, 8, 10, 11, 15, 16, 18, 19, 20, 21, 22, 23, 26, 30, 31, 32, 35} This is a fairly common disease of widespread geographic distribution. It is infectious and highly contagious. The incubation period is ten to twenty-six days.¹⁵

The onset is gradual and is characterized



FIGURE 1
R. McC. Second day. Bilateral hilus involvement.



FIGURE 2
R. McC. Fifth day.

by headache, non-productive cough and recurring sensations of chilliness. Malaise, general aching and coryzal symptoms do occur and seem to vary in degree in individuals and in different epidemics. Most often they are not marked. These patients usually are seen on the second or third day, by which time the cough has become distressing and which usually remains the chief complaint throughout the illness. The patient does not appear seriously ill but usually complains of a tightness in the chest, or sensations of breathlessness, though objective dyspnea is not present. The temperature may be 101° to 105° with pulse and respiration disproportionately low. The pharynx may be injected. There may be slight conjunctivitis. Chest examination rarely reveals any positive findings in the first few days, although there may be occasional rales or slight impairment of resonance over a small area with diminished breath sounds. The white blood count will be found to be four to ten thousand with sixty to eighty per cent neutrophils. X-ray of the chest will show at least a small area of consolidation, usually at the hilus.

The onset is similar in most patients but there is wide variation in the subsequent severity. In mild cases the cough remains dry and distressing. There is usually one daily rise in temperature, occasionally two rises. The defervescence is by lysis and the

temperature may be normal in eight or ten days. About the time the fever begins to subside, sibilant respiratory sounds with showers of coarse moist rales are heard over the involved area. Occasionally patchy areas of dullness and tubular breathing may be found. The chest signs and cough may persist for a week to ten days after the patient is fever free and feeling well. The x-ray shadow may persist for two or more weeks.

The moderately severe course is characterized by prolongation of the period of acute illness which may last over two weeks. This is due to extension of the pneumonia to the other side or to another lobe. There is usually physical evidence of large areas of frank consolidation. The scanty sputum may be blood streaked and mucopurulent. The spleen may be palpable. Profuse sweats are not infrequent.

The severe case may last three to five weeks during which time the continuous racking cough exhausts the patient. There is rapid extension of the process throughout large portions of both lungs. Dyspnea, cyanosis, asthmatic breathing and high irregular fever are seen. The chest findings may resemble pulmonary edema. Even in the severe type the white blood count is not elevated if there is no complication due to pyogenic organisms.

Complications are unusual even in the



FIGURE 3
R. McC. Ninth day.



FIGURE 4
R. McC. Twenty-first day.

severely ill. Pleurisy with or without effusion, polyarthritis, thrombosis of the lower extremities, meningismus, coma, psychoses, and encephalitis have been reported. Herpes is rarely encountered.

Diagnosis

During the epidemic, the onset with headaches and almost continuous cough, the low white blood count, the patchy or shifting areas of consolidation, the late appearance of physical signs in the chest, the characteristic wheezing breath sounds with coarse moist rales, the hectic fever, the failure of sulfonamides to alter the clinical course, and the absence of any etiologic bacterium from the sputum, should make the diagnosis not too difficult.

Sporadic cases, which are apt to be more severe than the epidemic ones, require diagnosis by exclusion. Differential diagnosis is difficult. Typhoid and undulant fever, the bacterial pneumonias including tuberculosis and tularemia, coccidoidal granuloma, psittacosis and influenzal pneumonia, lung abscess, bronchiectasis, atelectasis, and primary or metastatic lung malignancy are to be considered.

X-Ray

The radiologic findings are indispensable to diagnosis. At the onset there is marked increase in density of one or both hilus shadows, with a fan-shaped localized ac-

centuation of and numerical increase in the linear pulmonic markings extending from the hilus into the adjacent lung field.³⁰ The spread is usually downward but may be lateral or to one of the upper lobes. In the moderately severe group the infiltration may extend to the periphery with irregular shadows suggesting lobular involvement. In the severe group the involvement may be bilateral and there may be a diffuse spread throughout the remainder of one or both lungs with large confluent areas of consolidation or smaller irregular areas.

Laboratory

The laboratory findings, in addition to a normal or slightly elevated white blood count with slight shift to the left, are: absence from the sputum of significant numbers of the lower type pneumococci, Friedlander bacillus, pyogenic cocci or other bacterial agent known to produce pneumonia.

Prognosis

The prognosis is usually good, though death may occur from cerebral complications, pre-existing disease, such as organic heart disease, or from the disease itself, uncomplicated. Epidemics of virus pneumonia in infants have been reported with mortality as high as twenty-eight per cent.^{1, 2, 14}



FIGURE 5
L. C. Third day. Lateral spread-left.

Treatment

Treatment is symptomatic. The harrowing cough requires liberal use of codeine. Steam inhalation and saline or hypertonic glucose gargles give some relief. During the acute febrile stage morphine and barbiturates tend to precipitate delirium and should be avoided. Antipyretics should be avoided if possible because of the tendency to sweating. Sponges or alcohol rubs will usually reduce the temperature. Oxygen will relieve the dyspnea, cyanosis and sometimes the abdominal distention of the severe cases. Thiamin and niacin are helpful in the prevention and treatment of delirium. Diet should be simple but adequate, especially if temperature is high. Fluid loss from sweating may be great, especially during summer epidemics. Adequate fluid and salt intake should be maintained. Sulfonamide drugs are of no value and should be avoided if the diagnosis can be made early. If there is doubt, they should be used for forty-eight to seventy-two hours and discontinued if they do not alter the clinical course. Flexner and Garon¹¹ report that convalescent blood or serum has been used with gratifying results and should be used in the severely ill as a specific.

The Milledgeville Epidemic

Nine cases were admitted to the hospital in April, May, June, and July of 1942;



FIGURE 6
M. V. H. Third day. Upward spread-right.

the tenth from another county in October, 1942. Nine of the ten were females. Age extremes were thirteen and fifty-five. Three were critically ill; four were moderately ill; three were mild. There was a concurrent epidemic of upper respiratory infection and several mild cases showing the clinical course of virus pneumonia were treated at home without x-ray or laboratory studies, and were not included in this series.

In each of three families two cases occurred, the secondary case in each instance developing within the incubation period. From the remaining four primary cases no secondaries were known to have developed.

Coryzal symptoms, pharyngitis and general aching were minimal. All had sweats.

The complications seen were: catarrhal otitis, polyarthrititis, pleurisy, supraorbital herpes, meningismus with psychosis, and abdominal distention. Each occurred once. Only the three critically ill patients had complications. There were no deaths.

Conclusion

Ten cases of "acute atypical" or "virus type" pneumonia have been reported. The characteristics of this disease have been discussed briefly.



FIGURE 7
H. C. Third day. Downward spread-right.

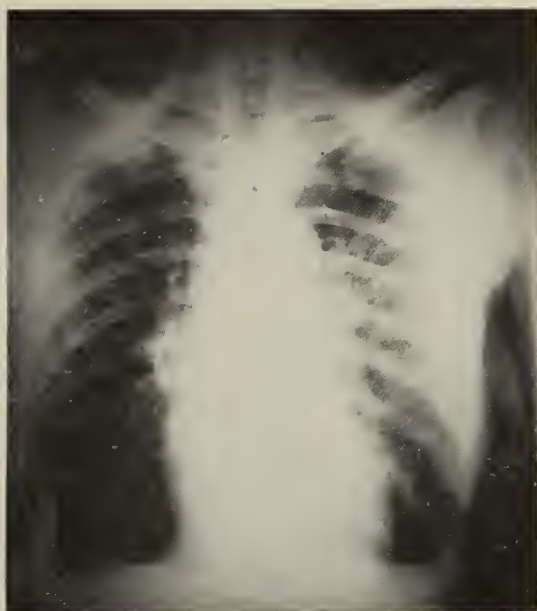


FIGURE 8
L. H. Tenth day. Bilateral military involvement.

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THE ELECTROCARDIOGRAM: ITS INDICATIONS AND LIMITATIONS

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The electrocardiograph is an instrument of precision and has proven of great value in clinical diagnosis, but it cannot replace a thorough history and careful physical examination. Its use may at times lead to confusion, particularly in young individuals, as experienced in the Army. Changes which may be normal in the fifth and sixth decades of life may be abnormal in the second and third decades. The normal tracing of infancy and childhood may be different from that of the adolescent and adult.

Body build may influence the character of a record, viz: stocky build with inverted T waves in leads 2 and 3; low diaphragm with right axis deviation; high diaphragm with left axis deviation, etc. The position of the body may cause alteration in the complexes, abnormal changes in the up-right position disappearing when the trac-

Read before the Medical Association of Georgia, Atlanta, May 12, 1943.

ing is taken in the recumbent position. Respiration may cause changes in the complexes, i.e., the T waves may invert in leads 2 and 3, in a normal stocky individual during inspiration and disappear during expiration. The cardiac rate may influence the character of the EKG—i.e., low T_1 with tachycardia.

Katz¹ states: "Not only is the degree of abnormality no certain measure of the degree of damage to the heart, but in addition, with few exceptions, the EKG cannot specify the nature of the myocardial involvement. A single EKG cannot distinguish a functional, reversible effect, due to drug action, poor blood supply or anoxemia, from organic and irreversible heart disease. It cannot distinguish intoxication of the heart during acute infection, uremia and the like from the action of therapeutic agents used during the course of such diseases, or from inflammatory processes involving the heart. It does not distinguish between cloudy swelling, fatty infiltration and actual inflammatory reaction. It cannot always distinguish inflammatory change from degenerative change resulting from interference with its blood supply. In short, with a few exceptions, the EKG cannot make the diagnosis of the etiology of myocardial involvement—this is a matter demanding correlation with the other clinical evidence."

Hall,² in reviewing the EKG's of 2,000 R.C.A.F. members, found the textbook normal in 1.3 per cent; the common normal 18 per cent; normal variation in 65 per cent; doubtful abnormal in 15 per cent; and abnormal in 0.45 per cent. The conclusion was that the text book normal EKG is rare. In reviewing 5,243 EKG's on 3,166 soldiers, we found 342 abnormal; 1,499 normals, and 1,325 borderline tracings. Thus, 52 per cent of the tracings were borderline or abnormal. Excluding those cases with possible etiologic factors, we find that 35 per cent of tracings on apparently normal individuals showed deviations from the normal.

In four conditions, the EKG may at times be diagnostic:

1. Myocardial infarction.
2. Digitalis intoxication.

3. Auricular fibrillation with right axis deviation, indicating mitral stenosis.

4. Congenital dextrocardia.

Other conditions in which the EKG is of value:

1. Arrhythmias.
2. Tachycardias.
3. Coronary artery disease.
4. Pericarditis.
5. Pulmonary embolism.
6. Hypertrophy.
7. Quinidine.
8. Cardiac neurosis.
9. Cardiac involvement during systemic disease.

In the analysis of arrhythmias, it is of value in differentiating benign arrhythmias such as sinus arrhythmia, from auricular fibrillation, which usually carries a more serious prognosis. It is to be remembered that a diagnosis of heart disease should never be made on the findings of auricular fibrillation alone. It is important to distinguish sinus tachycardia from auricular flutter and ventricular tachycardia; sinus bradycardia from complete heart block. Auriculoventricular and intraventricular heart block, as a rule can only be diagnosed by the use of the EKG. Extrasystoles as a rule are benign but when arising from multiple foci, they may indicate a damaged heart.

Unsuspected coronary artery disease may be detected by the EKG. Angina pectoris is a clinical diagnosis and cannot be diagnosed by the EKG. Approximately 30 per cent of patients with this condition have a normal EKG. A person may have a normal EKG one day and drop dead the next day.

Many of the mistakes in diagnosis arise from misinterpretation of changes in the ST segments and T waves. Sprague³ has listed 41 different conditions which are associated with abnormalities of these segments and 33 of these do not imply heart disease.

Pericarditis may at times closely simulate coronary occlusion, and the EKG is of untold value in differentiating the two. The proper diagnosis is extremely important.

ant since the prognosis is quite different in the two conditions. Not uncommonly an unsuspected pericarditis is detected following atypical chest pain.

Pulmonary embolism, at times, gives a diagnostic EKG pattern. Katz¹ found this in 10 per cent of his series of pulmonary embolism. The question of coronary occlusion is frequently raised in these cases, and again, the differentiation becomes important, for if the patient with embolism recovers, the prognosis is good, while with coronary occlusion, the prognosis is less good.

The electrocardiogram is of value in detecting cardiac hypertrophy. When combined valve lesions are present, it aids in deciding which of the lesions is causing the predominant heart strain. There may at times be no deviation when the strains balance. Hypertension is the most common cause of left ventricular preponderance; however, Schnur⁴, in reviewing 100 cases with enlargement found this in only 35 per cent of the cases. The duration and not the degree of hypertension is the important factor. A diagnosis of chronic cor pulmonale or pulmonic stenosis should not be made in the absence of right ventricular preponderance. When hypertension and emphysema co-exist, it may help to distinguish whether the strain is greater in the systemic or pulmonic circuit.

In the presence of cardiac neurosis, a tracing is of value to distinguish functional from organic heart disease and to convince the patient that his heart is normal. It lends added assurance to the physician. In neurocirculatory asthenia, one occasionally sees inversion of the T waves in leads 2 and 3. Approximately 50 per cent of tracings in 100 such cases in our hospital showed some deviation from normal, such as low amplitude of T₁, axis deviation, etc.

At times the heart may become involved during the course of systemic disease. Such involvement may only be manifested in the electrocardiogram. Rheumatic fever and diphtheria are examples. Recently, we observed a young soldier with acute infectious mononucleosis, who developed a complete heart block during his illness. Two patients with periarteritis nodosa developed EKG evidence of coronary insufficiency and subsequently developed congestive heart failure.

The toxic effects of digitalis and quinidine can at times be ascertained in the EKG. However, it has been shown that depression of the ST segments may occur in less than 50 per cent of cases which have been fully digitalized.⁵ A tachycardia which develops during the course of digitalis administration may be of ventricular origin indicating a serious toxic effect. The presence of a prolonged PR interval does not of itself call for a cessation of the drug; frequent extrasystoles enjoin caution and a reduction of the dosage. Quinidine toxicity may result in varying arrhythmias, intraventricular block or auricular standstill.

Marvin⁶ states that the widespread use of the electrocardiogram may actually be doing harm, because of misunderstanding and ignorance of its limitations. "The changes in the ventricular complex, including its terminal portion, are mainly responsible for the gross misuse of the method. The EKG hardly ever gives any helpful information on the functional state of the heart muscle, and thus the therapeutic question of the amount of rest and action, and the quantity of digitalis to be given cannot be decided by the EKG, although it has been shown repeatedly that this is usually impossible. Misinterpretation of the EKG is responsible for a large number of unjustified diagnoses of heart disease. Such diagnosis should never be made because of some minor variation or change in the EKG alone, in the absence of supporting clinical evidence." Willius has said, "The expression of a clinical opinion on the part of an electrocardiographer who knows nothing of the patient's history or physical findings is utterly unwarranted."

In conclusion, the electrocardiogram is a great aid in diagnosis, particularly when serial tracings are available. There are, however, definite limitations, and changes revealed by the electrocardiogram must be interpreted in the light of clinical findings. Heart disease should not be diagnosed on the basis of minor EKG findings in the absence of clinical evidence of disease.

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DISCUSSION ON PAPERS OF DR. CHAS. B. FULGHUM
AND DR. R. B. LOGUE

Dr. L. Harvey Hamff (Atlanta): We are certainly indebted to the speakers who have given us such excellent papers.

Dr. Fulghum reviewed very excellently for us the literature on so-called virus pneumonia and has reported to us his experience with this disease. We are indebted to him for this discussion.

I say so-called virus pneumonia, for it probably is a virus infection, but I prefer to call it atypical pneumonia. There are many features of the disease which make one feel that it probably is a virus infection, but since no etiologic agent has been found probably a better terminology would be atypical pneumonia. I understand the Surgeon General of the Army prefers the term atypical pneumonia and uses it.

It is very interesting to speculate whether this disease is a new entity or whether it has been present in previous years unrecognized. I think the latter is quite possible for with hospitalization insurance, and with patients being admitted into hospitals more frequently, x-rays taken of the chest will reveal the presence of a pneumonitis that would otherwise have been overlooked. Dr. Fulghum discussed the symptomatology of the disease very completely. I would, however, like to stress the absence of complications in this type of pneumonia. The fatalities are very, very rare in this disease and even though patients are severely ill, they practically all recover.

Dr. Fulghum mentioned x-ray as being almost indispensable in the diagnosis of virus pneumonia. Physical signs may be absent or very slight, and the diagnosis should not be made without x-ray facilities. The textbook picture of the x-ray findings in virus pneumonia, as Dr. Fulghum pointed out, are changes spreading out from the hilum. However, I believe many patients with virus pneumonia do not show the typical x-ray findings, but may have a pneumonitis involving one or more lobes indistinguishable from a pneumococcal bronchopneumonia. I also believe it is quite common for these people to have a slightly elevated white count instead of the classically normal or low white count. Treatment with the sulfonamides is of no value, but I do believe a trial period of 48 to 72 hours with one of the sulfonamides is certainly of value because you may have a type of pneumonia which will respond to sulfonamide therapy.

I enjoyed very much Dr. Logue's paper on the indications and limitations of the electrocardiogram. As he said, it is very important to interpret the electrocardiogram properly. An improper diagnosis of heart disease

may be made on the erroneous interpretation of an electrocardiogram which shows slight deviation from normal without other clinical evidence of heart disease.

Dr. Logue brings out in Hall's evaluation where 15 per cent of the electrocardiograms taken in a series of Canadian soldiers were doubtful normal and 0.45 per cent were abnormal. However, if we assume that Dr. Logue's series were from apparently healthy individuals, we find a significantly higher incidence of abnormals. He states that 52 per cent of the tracings were borderline or abnormal. Three hundred forty-two abnormals, 1,499 normals and 1,325 borderline tracings were obtained. This adds up to only 3,166 tracings, whereas 5,243 were obtained. This leaves 2,077 tracings unaccounted for. Maybe Dr. Logue meant 342 individuals had borderline tracings, 1,499 individuals had normal tracings, and 1,325 individuals had borderline tracings. With these figures 10 per cent of the series would show abnormal tracings as against 0.45 per cent in the Hall series, and 42 per cent doubtful normal as against 15 per cent in Hall's series. I believe the difference must be in interpretation and I should like to ask what criteria were used to call the EKG's abnormal.

I feel that one of the most important things to remember in using the electrocardiogram is its limitations. That was brought out so well by Dr. Logue. We must not expect too much of the electrocardiogram. As a rule diagnosis of heart disease cannot be made solely by electrocardiogram, but one must take into consideration the patient's history and the physical findings. From the electrocardiogram left axis deviation seen in aortic insufficiency cannot be differentiated from that seen in hypertensive heart disease. Right axis deviation seen in mitral stenosis cannot be differentiated from that seen in congenital stenosis of the pulmonic valve. The electrocardiogram, of course, records the electrical activity of the heart muscle and its interpretation must be on the basis of changes which have occurred in the myocardium, whether on a functional or on an organic basis. Valvular heart disease is not a heart lesion that can be diagnosed by the electrocardiogram, for changes in the electrocardiogram would be those reflected by the cardiac hypertrophy which the valvular lesion has produced.

There are many indications for the use of the electrocardiogram. Many times the electrocardiogram confirms the diagnosis made by history and physical findings. In a few conditions the electrocardiogram may be diagnostic, such as in myocardial infarction or in various arrhythmias. Some of the arrhythmias or tachycardias can only be differentiated by the use of the electrocardiogram. Although present, many of the arrhythmias may not, in themselves, connote heart disease.

Major R. Bruce Logue (closing): The review of the electrocardiograms on 2,000 Canadian soldiers dealt with routine tracings taken on presumably healthy, young men. Of course, our tracings were taken on hospital patients for one reason or another. Approximately 35 per cent of the tracings classified as borderline or abnormal occurred in a group in whom there was no obvious

etiologic factor. The criteria for classification were as follows:

<i>Borderline</i>	<i>Abnormal</i>
Low or isoelectric T.	PR interval 0.21 or over.
Low or isoelectric T ₂ .	QRS interval of 0.11 or more.
Axis deviation.	Deep Q wave in lead 3.
Inverted or diphasic T ₃ .	Auricular fibrillation.
Premature beats.	Inverted or diphasic T ₁ or T ₂ .
Depressed RT interval of 1 mm.	Inverted T wave in precordial lead.
Isoelectric or diphasic T wave in precordial lead.	QRS 3 mm.
Q ₃ with inverted QRS and T ₃ .	Q wave in precordial lead.
QRS 5 mm. or under.	
Small R; precordial.	

All tracings were classified according to the *Criteria of the American Heart Association*.

I think that many patients develop minor abnormalities, such as a low T wave in lead 1, usually associated with tachycardia, after prolonged convalescence in a hospital. Such changes are frequently accompanied by other evidence of vasomotor instability. As to the difference in figures, there were more than 5,000 tracings taken on more than 3,000 patients and the figures for borderline and abnormal were obtained from a consideration of the total number of patients.

Dr. Chas. B. Fulghum (closing): I want to thank Dr. Hamff for his discussion.

Virus pneumonia is probably not a new disease entity. Its etiology may yet prove to be new. No one knows.

Dr. Hamff mentioned that the white blood count is somewhat higher than the textbook picture. That is true toward the end of the disease. The white blood count does go to ten, twelve or even fourteen thousand, which may or may not be due to low grade bacterial invasion and of course sore throats, streptococcus, etc., which produce white counts in their own right may run concurrently with the disease which we are discussing.

REMEDIAL AGENTS AND HEALTH

"One deplorable aspect of life in America is reflected in the advice we get over the radio concerning a great variety of remedial agents. Those who act on these suggestions are the victims of fear," Arlie V. Bock, M.D., Boston, declares in *Hygeia The Health Magazine* for June.

"Because there are so many such victims the makers of liver pills, cathartics and aids for this and that ailment are able to make good financial dividends. We do not need to take drugs to keep healthy. . . . When you have a cold or an acute upper respiratory infection, your best friend is early and sufficient bed care. . . . Your bowels will move if you give them a chance, and of all things you do not need colon irrigations. Your liver has enormous capacity to look after itself, and your kidneys get all the flushing out they need if you are leading a reasonable type of life. . . . In short, simple, intelligent, everyday hygiene is all that you need to be concerned about in all these respects. When things begin to go wrong, get some needed rest, and when questions arise that you cannot answer try to consult your doctor at once instead of worrying about dire possibilities. . . ."

SYMPOSIUM ON NUTRITION

WEAK POINTS IN THE MEDICAL APPROACH TO THE NUTRITION PROBLEM

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Like a traveler lost in a forest, the public today finds itself confronted on one side with a veritable jungle of information on nutrition and on the other with a tangled mass of food shortages and ration coupons. The gustatory sense is no longer the sole judge of the dietary. Mathematics has assumed a dominant position in determining the amount and availability of foods. Restrictions on prepared foods has re-emphasized the proper preparation of food. The can opener is not a ready answer and pantry shelves can be used for other than storage of food. These war time changes are, we hope, temporary.

Nutrition enjoyed attention during World War I but did not retain its popularity. Our interest should be focused on continuing the interest in nutrition following a satisfactory termination of this war.

The public is eager for information on good nutrition. It is receiving a large amount of misinformation. Commercial firms are capitalizing on the public's sincere interest in the subject, with the result that many claims are being made as to the curative powers of certain foodstuffs which reach far beyond the basis of scientific fact. The enthusiasm of honest nutrition workers sometimes carries them out of the realm of scientific truth. In an effort to popularize new ideas, words and phrases are used which create erroneous impressions in the public mind. Such overemphasis and false claims are certain to be deleterious in the end.

Many non-professional people are presenting and discussing aspects of the nutrition problem which only the medical profession is prepared to discuss. The public is paying handsomely for unscientific diets

Read before the Medical Association of Georgia, Atlanta, May 12, 1943.

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and often, as a result, suffers from malnutrition. This is a situation not to be tolerated, since it is already accepted that the majority of our citizens are victims of sub-clinical deficiency states which affect physical and mental efficiency.

The medical profession must be on its guard to see that only information of real value reaches the public. And it must provide correct information on the subject for popular public consumption. We may assail those who read newspaper columns on medical topics, but they will continue to read and accept this advice. Where else can it be secured? It is essential that the public be taught that any information on nutrition or other health subjects should be obtained from the medical profession or have its approval. If not, the public will drift away from the physician and become more and more dependent upon other sources of information.

A primary problem also is the need for agreement among physicians on the basic nutrition principles. There exists today considerable confusion and conflict in the advice and information given. For example, it is rare to visit a health center for expectant mothers and not hear the physician advise the prenatal patients routinely to omit pork from the diet. Upon what is this opinion based? Nothing in literature supports it. Perhaps an excess of salt is undesirable, but not all pork contains excessive salt. As pork is the chief meat supply in rural sections, how are these women to obtain protein, vitamins and other necessary food elements if they must omit pork from their diets? To add further to the complications, our public health nurses are taught to encourage the consumption of lean meat by prenatals. Therefore, if they teach according to instruction, their advice to patients would not conform to that of the physician.

All authorities agree that vitamins A and D should be included in the child's diet, but the importance of fish liver oil in the diets of infants and young children is not subscribed to by some physicians serving in health centers. The basis for objecting to the inclusion of this product in the diet is that rickets is unknown in Georgia. This

idea is based on the infrequency of rickets in an advanced stage, and failure to recognize that the accurate diagnosis of mild rickets depends upon x-ray findings. Most of the rickets seen in child health centers is among Negro children for they do not benefit equally with white children from exposure to sunlight. Many parents cannot afford fish liver oils, but they can be instructed in the use of exposure to sunlight as a substitute. This necessitates proper instruction as to best time of day for exposure, removal of clothing except diapers, importance of regularity, and the need for gradual prolongation of exposure time. In the Negro, sunburn is rare and exposure time must be much longer to be effective. Although exposure to sunlight is advantageous, it is not dependable because parents frequently fail to follow a definite routine, cold days make it impractical and it fails to provide vitamin A, which the child needs and can secure from fish liver oils. If physicians, instead of nurses, in health centers stressed the value of fish liver oils the advice would be more frequently heeded.

The most common deficiency found among prenatal cases is hypochromic anemia resulting from a diet low in iron, yet most health centers where such cases are supervised do not make hemoglobin determinations. Those who have made such tests find an amazing number of cases with moderate grades of anemia. It has been shown that there is a direct relationship between anemia and complications of the intra-and postpartum period. Since this deficiency requires time to correct, it follows that corrective measures should be instituted early. The difficulty encountered in securing diets high in iron and the need for prompt response to treatment would appear to make it advisable to prescribe iron salts for these women. If health center clinicians required hemoglobin determinations on patients routinely and desired to prescribe iron salts, the centers would no doubt plan to add this additional feature to the routine established.

As a further illustration, it was interesting recently to observe in a mountainous area that 98 per cent of the babies were

successfully breast fed. Few are the areas today where this can be observed, despite the fact that physicians generally agree that babies should be breast fed whenever possible. There would appear to be one major reason for the decline in percentage of breast fed infants; namely, it is more convenient to fix a formula and the procedure allows the mother more freedom. In many instances mothers cannot be induced to nurse their babies, but how much of this situation is due to the physician's statement that formulas are equally satisfactory? Often it is concluded that breast feeding is a failure within the first 72 hours, before the breast normally reaches a complete lactation stage. The mother's responsibility is not always stressed because she does not want or desire it. Modifying medical indications to conform to public opinion makes the declining incidence of breast feeding a definite medical responsibility.

In connection with this problem, attention is called to the fact that hospitals do not provide breast milk for prematures. I know of no hospital in Georgia that has a planned breast milk service for these immature babies. The most authoritative sources agree that there is no substitute. Hospitals with a maternity service could perform a dual job by teaching manual expression or by routinely using the breast pump. First, the extra milk would meet the requirements of premature infants; and second, it would make the breast more productive. This would appear to be the most practical method of making breast milk available for premature infants in hospitals. Complete emptying of the breast is perhaps the only dependable stimulus.

Superstition concerning food consumption is also a sizable stumbling block in the solution of the nutrition problem. The origin of some of the superstitions encountered would no doubt prove very interesting but does not belong in this discussion. One of the more frequent obsessions one meets with is that more than one egg per month in an infant's diet leads to death. Such false beliefs and fixed ideas are hard to uproot. Herein lies the value of having physicians attack the problem because no one commands the respect or conveys au-

thoritative knowledge to the same extent as the family physician. Questioning is frequently required to elicit these ideas and time must be devoted to persuading the adherents to discard them. Only the physician holds the key which will unlock the door behind which such superstitions flourish.

In a world at war food production at home must be increased if hunger is to be avoided. Proper food selection is essential and food preservation must be developed to offset the scarcity of commercial products. Though promotion of gardening and food budgeting are not considered medical phases of the nutrition program, the physician should lend his support to the movement.

With the present limited participation of the medical profession in the nutrition program, satisfactory results on a group basis cannot hope to be achieved. To date the physician in his private practice has been chiefly concerned with advising patients who need special diets. This service should be expanded to the extent that the physician will apply nutrition information at every opportunity and, in addition, seek opportunities to disseminate knowledge of proper nutrition to every individual and group available. The response by the profession to the Health Department leaflet on balanced diet was heartening. This media may well be utilized to an increasing extent. Public health can help supply such material to physicians desiring to distribute it.

The question may well arise as to how arrangements are to be made to present the subject of nutrition or other topics relating to health education to discussion groups. In answer, it can be said without fear of contradiction that any physician who desires to discuss health subjects will never want for an audience. No community is without discussion groups, civic clubs, etc., and the physician would be implored to present his subject if it were known that he was available. Every physician in Georgia could be utilized in such a manner.

It is a mistake to attempt to bring the public to our lectures rather than attending their gatherings. The public will attend their own meetings although they often do not respond to special lectures sponsored

by other groups or agencies. The smaller groups which meet periodically present an ideal audience and lend themselves more easily to discussion.

As to whether or not such group education is in violation of medical ethics, it may be said that the provisions of medical ethics have often been misinterpreted. Most assuredly there is a distinction between health education and advertising. Is it possible that ethics have at times been used to hide behind?

There are several reasons back of the medical profession's apathetic attitude and lack of participation in public health education: 1, the physician is not inculcated with his responsibility for contributing this service. The modern medical colleges do not stress such obligations in their curricula; 2, public speaking is somewhat difficult without previous experience and effort. The ability to talk in lay terms must be cultivated; 3, only an acute interest in public health will overcome the criticism that might arise from fellow practitioners who do not favor such ideas; 4, an adequate knowledge of the subject is required as, otherwise, questions may be baffling; 5, it requires time to prepare subject matter and constant reading to keep abreast of developments, and physicians are extremely busy people.

The public health physician must not be allowed to escape consideration in this discussion. The primary responsibility for an organized nutrition education program rests on his shoulders but is being shrugged off because he hesitates to add this duty to the many others already imposed. Perhaps the knowledge that progress is slow in this field and must be measured in generations rather than years has contributed to his discouragement. The public health physician is more attracted to the dramatic episodes, as are most physicians. Lack of specific and productive methods of application of nutrition information has been a factor in curtailment of initiative. The fact that nutrition must be attacked by various groups to be effective has often resulted in the "Let Johnny do it" attitude. Public health personnel in general has not assumed its responsibility in solving the problem and,

until this situation is corrected, our public health program will continue to treat public health problems in the communities without the aid of the most important and specific remedy for all ills encountered.

Briefly, some of the weak points in the medical approach to the nutrition problem are: the medical profession's failure to guide the public in its thinking on nutrition and to provide it with material on the subject; the need for agreement among physicians on basic nutrition principles; the necessity to combat superstitions and false food notions; and the profession's limited participation in the nutrition program on both an individual and group basis.

The medical profession has always guided the public along health lines and its responsibility for promoting proper nutrition cannot be assumed by any other group. The gap between present nutrition information and applied nutrition principles constitutes an abyss that must be spanned before success is attainable. This engineering feat will require the efforts of all concerned, and the medical profession is the one group that can exert the greatest and most lasting influence.

At no time in the history of medicine has it been more necessary that the profession guide the public. We know that public opinion is often erroneous. We know that the public desires medical programs which often prove to be impractical. We know that public opinion will be the determining factor. What we do not know is that the public is digesting information and ideas that are contrary to good medical practice. Nutrition constitutes only one phase of the problem. Either we educate the public or we become the victims of their ideas.

LEGS MAY BE SAFETY FACTOR FOR HEART

Discussing recently reported investigations which showed little effect on the hearts of normal persons from rigorous participation in various sports, *The Journal of the American Medical Association* for May 29 says that "Perhaps it is safe to believe that in the majority of instances the legs or other elements of the musculoskeletal system would tend to give out before the heart, thereby serving as a factor of safety."

FOODS IN WARTIME

SUSAN MATHEWS

Athens

America entered this war under the greatest surge of interest in nutrition ever known before. Thinking in terms of an optimum standard of diet for our people was already taking shape. Our nutritional scientists had determined that better than average diet results in better growth and development, greater stamina and efficiency, and a longer and more useful life. But the advent of Pearl Harbor gave us a new goal toward which to work — that of winning the war and the peace. It became evident that food must serve first to promote the interest of the war, and second to maintain the health of the people. This awareness of the importance of nutrition on the part of the people will go far toward helping us through this emergency in which we find ourselves.

You, the medical men of America, have been responsible to a great degree for this keen interest in nutrition. You traced the relation of diet to many of the illnesses found among our people and immediately they were impressed.

You, the medical men of Georgia are cognizant of the fact, I am sure, that here in our State there are many problems concerning the nutritional status which have farreaching significance. Some of them were highlighted by the Consumer Purchases Study made by the Bureau of Home Economics in cooperation with other government agencies. Though this study was made in 1936, many of the problems which existed then continue to exist today.

There was found to be a direct relationship between income and type of diet. As incomes rose, an increased proportion of families of all types had diets which could be rated good or excellent. This was more consistently true of village and city families than of farm families. Among farm families there sometimes appeared wide differences in type of diet. By producing the more important foods on the farm, many

families of low income were able to provide diets of high nutritive value. Georgia is distinctly handicapped by low income in providing satisfactory diets for her citizens. In 1942 the average per capita cash farm income in Georgia was \$178.00, and the corresponding income for the United States was \$540.00. The per capita non-farm incomes for Georgia and the United States in recent years are not available. In 1935 the per capita nonfarm income in Georgia was \$267.00, and the average for the United States was \$439.00. Since that time, it does not seem probable that non-farm income in Georgia would have increased enough to bring it up to the level of the country as a whole. These figures indicate that our State income is much below the national average, being only 33 per cent and 60 per cent as much as that of the nation in the above instances.

The Consumer Purchases Study revealed that farm families, on the average, had somewhat better diets than did city and village families. The diets of farm families contained more of the protective foods: milk, eggs, fruits and vegetables. Since incomes were lower in the Southeast than in other sections, most farm families could have protective foods only by producing them. This is precisely what happened, and Georgia was singled out as having an excellent record in this respect. A news release from Washington dated Dec. 10, 1937, gave the following information: "Among more than a dozen farm areas thus far analyzed, Georgia ranks at the top in the value of food produced on the farm for family consumption. This averaged \$393.00 per year for the nonrelief white farm operators."

This optimistic report does not mean, however, that all farm families have satisfactory diets. The 1940 census revealed that 27 per cent of the farms in the State had no milk cow, 24 per cent no hogs, 9 per cent had no poultry, and 11 per cent of all families did not grow vegetables for home use. In general, it can be safely concluded that the families who did not produce the above foods had diets of low dietary value.

One of our nutritional problems has its roots in farm tenure. It was found that

Read before the Medical Association of Georgia, Atlanta, May 12, 1943. Invited guest.

Extension Nutritionist, Department of Agriculture and Home Economics, State of Georgia, Athens.

sharecroppers had less adequate diets than did farm operators. Their diets contained less of the protective foods; their programs of production were less adequate; they lived at lower income levels. This situation takes on graver significance when we remember that in 1940 60 per cent of Georgia's farms were operated by tenants and sharecroppers. Forty-three per cent of these tenant families had moved to their present homes not more than fifteen months before. Such shifting families do not plant fruit trees, produce feed for the poultry flock or milk cow, or even plant a garden for fear they will move away and leave it.

A relationship has been found to exist between size of family and type of diet. On a given income the more persons there are to feed the less the amount to spend for each person. In 1940 the average-size family in Georgia was 4.2 persons, and the average for the United States 3.8 persons. The largest families were on farms. The average farm family in Georgia was 4.7 and the average for the country 4.3. These large families mean a greater proportion of children in our Southland and it is for children that food has the greatest significance. The greater number of these youth are on farms. Of the children on farms the greater number are in sharecropper families where incomes are lowest and diets are least adequate. It is unfortunate for the persons concerned and for the State and the nation that so many children are members of these disadvantaged homes.

These are some of the reasons why the Southeast was found to have lower dietary standards than other sections of the country. Fewer than a fifth of the families had diets which met the standards set by the National Research Council. Deficiencies most frequently found were calcium, ascorbic acid, and riboflavin. Other shortages less frequently found were protein and vitamin A. The lowest income families had diets deficient in most of the nutrients. These deficiencies were more severe in the diets of Negroes than whites. Deficiencies in diets of low income Negro families in cities were very serious.

There are reasons to believe that diets in Georgia are better today than they were a

few years ago. Both farm and nonfarm incomes have increased. Notwithstanding the increases in the cost of food, industrial workers are probably able to buy more and better food. This situation does not apply, of course, to those who have fixed incomes. Farm families have had such a low standard of living for many years that the increase in farm income perhaps does not place them in an advantageous position so far as better food is concerned. Undoubtedly these same problems, low income, tenancy, and large families, continue to be a factor in our nutrition program today.

Diets that can be classified as good, nutritionally speaking, include more of the protective foods — milk, green leafy vegetables, and vitamin C-rich foods — than do usual diets. The Bureau of Home Economics has estimated that in order to raise the 1936 level of food consumption in this country to a plane rated as good, it would be necessary to consume 20 per cent more milk, 15 per cent more butter, 35 per cent more eggs, 100 per cent more leafy green and yellow vegetables, and 70 per cent more tomatoes and citrus fruits than we now do.

These recommendations indicate the direction in which our war food program should be steered. Figure 1 shows what an important place milk occupies in the diet. It is apparent that calcium and riboflavin are the nutrients most difficult to provide in the average diet. Milk is our most valuable source of these substances. A decrease in milk consumption carries with it danger of a deficiency in calcium and riboflavin. The production of an adequate supply of milk should be our first concern in the present conflict. We might well follow the example of England in this regard.

The green leafy vegetables also have particular significance for us at the present time. They, too, are excellent sources of calcium and riboflavin. The best insurance against a shortage of these important nutrients is to include in the diet the recommended amount of milk and at least one serving of leafy vegetable each day.

A drawback of considerable importance is the fact that many people do not like milk and leafy vegetables. A study of the

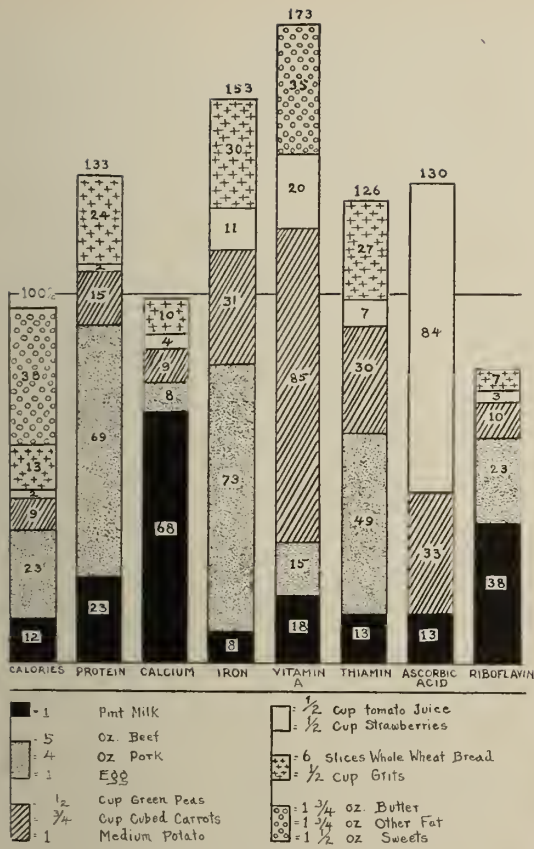


FIGURE 1
A day's dietary for an average man.

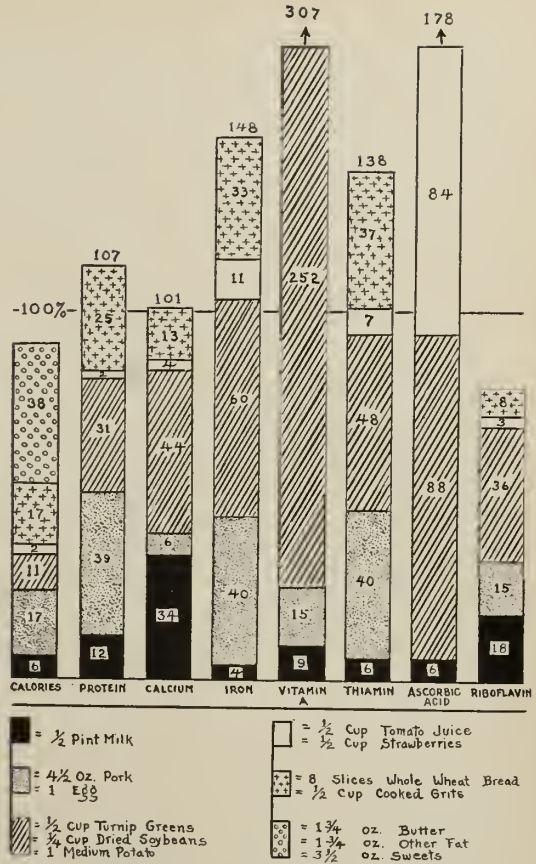


FIGURE 2
A day's dietary for an average man.

food likes and dislikes of the rural people in this State revealed the fact that leafy vegetables were liked least of all foods and that milk ranked next to leafy vegetables in the list of food dislikes. A similar study made by the Army has disclosed that soldiers also are least fond of leafy vegetables.

As the war moves into more advanced stages, shortages in the important protein foods — milk, meats, and eggs — appear evident. We shall need to use our utmost skill in making adjustments to prevent a serious lack of high quality protein. Figure 2 is included to show the extent to which soybeans and the green leafy vegetables may be used to supplement the diet. Leafy vegetables do not provide protein to any extent, of course, but they are rich in some of the minerals and vitamins contained in the animal foods. The soybean apparently is our most valuable vegetable protein food. Like the lean meats, it is rich in iron and vitamin B₁. You will be interested to know that the rural people of Georgia are greatly interested in the soybean and will grow

large quantities of edible varieties this year for home consumption. The peanut, which we already produce, like, and know how to use, will be of inestimable value in preventing a protein shortage.

The consumption of wheat flour in America has decreased something like 25 per cent during the past thirty years. At the same time the consumption of sugar has increased at about the same rate. About 98 per cent of the flour used has been white flour. This has brought about a decrease in the mineral and vitamin content of the diet. No group knows more definitely than this one what the results on health have been. We now face a shift back to a larger consumption of cereal foods. At the same time we shall continue to use less sugar. If some way can be found to induce people to use whole wheat bread or enriched bread rather than white bread, we shall be more nearly able to prevent the hidden hunger that is apt to come from an enlarged use of cereal foods.

In addition to the above measures for maintaining the health of the civilian popu-

lation, we should add the saving of food values. The use of large amounts of water which are discarded, cooking for long periods at high temperature, allowing foods to stand in contact with air, the use of soda, and grating, bruising, and crushing are all destructive to food values. No one has yet found a way to prevent some losses but it is possible to keep them at the minimum.

No one can predict what the food situation will be in the months to come. The shortage of labor, farm machinery, fertilizers, and insecticides present a situation which is far from assuring. The rationing program, however, has made people keenly aware of the importance of producing everything possible at home, and this will go far toward safeguarding the diet. There will be approximately 100,000 new gardens in cities and towns this year. Farm gardens will be larger and more adequate. Plans are underway for the largest sweet potato crop in many years. Agricultural economists think the total supply of vegetables will be adequate but there will necessarily be shortages in certain commodities and in certain localities. They think it important that families take advantage of peak seasons to can, dry, and store vegetables for use next winter. The planting of large quantities of leafy vegetables in fall and winter gardens will provide another safeguard for the winter diet.

The influx of large numbers of people around military camps has created a milk shortage in the State estimated at about 20,000 gallons a day. Approximately 10,000 gallons are being shipped in each day. Georgia farmers are working toward a 5 per cent increase in milk production this year but it is doubtful that they will reach their goal on account of the labor shortage and deficient feed. The feed situation is considered critical. It is hoped that the so-called dairy conservation program being sponsored by the Federal government will help to overcome the shortage. Loans are being made to farmers to purchase milk cows which are being disposed of in some of the larger dairy sections of the country. To date Georgia farmers have ordered between 4500 and 5000 milk cows under this program. It is not known, however, whether

these orders can be filled.

Were it not for the feed shortage, we might look forward to an unprecedented production of poultry and eggs. If the situation does not become too serious, there will probably be a 10 per cent increase in egg production and an estimated 25 per cent increase in broilers. A 15 per cent increase in pork production is expected but the production of beef will be less than last year.

On the home front Georgia will have the greatest season of food preservation in her history. Our State leads the nation in the number of community canning plants, having a total of 382. An allotment to Georgia of 100 additional steam retorts and 200 sealers by the War Production Board is expected. Georgia will have her proportionate share of 150,000 new steam pressure cookers being put on the market for home canning. The Federal government has assured home canners that tin and glass containers will be available in adequate amounts. Four community dehydrating plants are already in operation and thirty more will be completed before the processing season begins. Nine community freezer locker plants are available. There are in the State 101 ice plants where meats are cured, 1,000,000 pounds having been cured by them last year.

The Georgia Agricultural Extension Service is offering its entire staff of home economists to assist with the home canning program. Four additional workers have been employed to aid in counties having no home demonstration agent. Special arrangements are being made to provide canning demonstrations one day each week during May, June, and July in cities and towns of 10,000 inhabitants and more.

In conclusion, may I remind you that we have now our greatest opportunity to make progress in the field of nutrition. The war situation is stimulating homemakers to study food values as never before. The rationing program is developing real managerial ability among them. We believe that the present situation will bring about changes in food habits which would have required longer under other circumstances. We must hold fast to the gains which have

been made but keep before us the nutritional problems which have received as yet little attention. The realization of the part which nutrition can play in restoring a broken and bleeding humanity should spur us on to do our utmost in making this a happier world.

DISCUSSION ON PAPERS OF DR. E. R. WATSON
AND SUSAN MATHEWS

Dr. John B. Fitts (Atlanta): Both of these papers approach the problem of nutrition from very pertinent angles. Captain Watkins, from his observations in the Public Health Service, pointed out some weak spots that certainly do exist; and Miss Mathews gave us some very valuable facts from her long experience as a scientific nutritionist.

I think that the impact of the nutrition movement on the public has accomplished a reaction in that it has made the laymen "nutrition conscious."

Captain Watkins called attention to the misinformation often put out concerning foods and nutrition; for instance, it is most unfortunate that through overemphasis the vitamin field has become almost chaotic and confusing. As A. J. Carlson of the University of Chicago says, "Most of the people who can afford to buy them, do not need them; most of the people who need them cannot afford to buy them."

Vitamin products cannot, and should not take the place of the vitamin containing foods.

I think the nutrition program should be kept simple, on the line of basic principles. The layman has an exaggerated idea of the health value of fruits and vegetables, valuable as they are; whereas, the backbone of his eating should first be comprised of whole grain cereals and breads and the high protein values that are derived from meat, milk, eggs, and cheese, and about these could be grouped the accessory foods.

Captain Watkins pointed out the frequency of iron deficiency in prenatal groups. I should like also to add another iron deficiency group, which we see clinically, so often; namely, a middle age group, obese and associated with mild hypothyroidism, and hypochromic anemia.

Miss Mathews presented some concrete facts relative to the economic food ratios as it applies to this State. Fourteen years ago she pointed out food deficiencies in Georgia in a fine investigation of the food habits of rural Georgia. Today she emphasized the very real deficiencies of calcium, ascorbic acid, and riboflavin.

In my opinion, we have in Georgia an over-all deficiency in high quality protein, due to the inadequate intake of the lean meats, with their high amino acid content.

The rationing of sugar is fortunate; sucrose, a demineralized, devitaminized substance, taken as it is in great excess in the American diet, could even be more greatly restricted with consequent improvement in metabolic health.

As to bread, I do not believe the enriched flour goes far enough. The whole grain flour is the only answer to an adequate bread.

Both essayists have called attention to the defects in the cooking and preparation of foods.

When they are more generally available after the war, the small high pressure units will be the best solution of this problem.

Two years ago the nutrition program was set up in this country. The present food rationing will help to crystallize its value. I should like to caution against overemphasis; other causes of ill health exist, and attempts to make adequate nutrition a panacea will fail as do all panaceas.

Dr. Ernest F. Wahl (Thomasville): In the midst of the evolution of the knowledge of nutrition which has been in progress for a number of years, we have been suddenly confronted by a problem which none of us thought would ever exist in the United States; namely, the rationing of food. Before this, any person who had enough money could buy any kind of food they wanted. Now the rich, the poor and the middle economic classes have been reduced to the same status regarding food. Unfortunately or perhaps fortunately, this situation exists. I suppose we should be glad that some good is going to come out of this mad scramble. People have become more food conscious than ever before, and many have become interested for the first time in the proper balancing of diets. Many children have planted Victory gardens large enough to be of value to their families. Perhaps this is the first step in making them conscious of the postwar problem which will be their burden.

As Miss Mathews pointed out, undernutrition is often the result of poverty. It is also quite often the result of ignorance. Many families now have an income four or five times greater than ever before, yet eat the same inadequate diet. I suppose we should censure ourselves because we have failed to teach them what constitutes a balanced diet. In my opinion some but not all of the shiftlessness of certain classes can be attributed to poor diet and disease. The constitutional make-up of many of these people accounts for their remaining tenants. Captain Watson remarked about people reading health columns in newspapers. Most of this information is contributed by people who are by no means an authority on the subjects discussed. I wish to endorse Captain Watson's idea that if the public has an opportunity to read authentic data regarding health there will be less space left for the publication of misinformation.

PROPHYLACTIC DOSES SULFADIAZINE CURB
MENINGOCOCCIC MENINGITIS EPIDEMIC

The prophylactic administration of sulfadiazine by mouth, even in relatively small doses, appears to be a safe and effective method for curbing epidemics of meningococcic meningitis (infection with the meningococcus of the three membranes that envelop the brain and spinal cord) among large numbers of troops, Colonel Awight M. Kuhns, Medical Corps, United States Army; Captain Carl T. Nelson and Captain Harry A. Feldman, Medical Corps, Army of the United States, and Captain L. Roland Kuhn, Sanitary Corps, Army of the United States, report in *The Journal of the American Medical Association* for October 9.

"This method of prophylaxis might also prove to be of value in terminating outbreaks of this disease in other situations, for example on troop transports at sea or in schools, orphanages and other institutions," the four officers say.

DIVERTICULA OF THE ESOPHAGUS

REPORT OF CASE AND COMMENT ON A NEW SURGICAL APPROACH

JOHN W. TURNER, M.D.

Atlanta

Report of Case

A white woman, 59 years of age, was first seen by me Sept. 9, 1941, with a history of symptoms lasting over 15 years. She was referred by Dr. Avary Dimmock. She had been in good health until the spring of 1926, when she began to feel as if a string were drawn tightly around her neck and discovered an enlargement in the left supraclavicular space. A physician who was consulted told her that she might have a "beginning tumor" and suggested observation. Shortly afterward she began to have attacks of hoarseness, in some of which she could not speak above a whisper. These attacks, which occurred at intervals of five weeks to three months, usually lasted only a few days or a week or two but in one instance lasted for three months. She was treated by a second physician for laryngitis but, in her own words, "had no relief until I took cold and coughed so hard I broke my attack." In the intervals between attacks, which had persisted from 1926 until the patient came under my observation in 1941, she never felt really well. The enlargement in her throat made her nervous, and she suffered considerably from insomnia.

In January, 1939, the patient had an attack of pneumonia, for which she was attended by a third physician. During this illness her symptoms became aggravated and she began to suffer from asthma-like attacks, with extreme dyspnea and sensations of smothering, especially when she became overheated. Many nights she could not lie down at all. After this illness a fresh set of symptoms developed. She had a constant sense of epigastric fullness and whenever food was ingested she would cough, choke, and finally vomit; she was quite positive that the food vomited never reached the stomach. She also suffered from aching retrosternal pain, and she became increasingly irritable and nervous.

Three days before she was admitted to the Ponce de Leon Eye and Ear Infirmary in Atlanta in September, 1941, the patient had a series of extremely severe spells of choking and vomiting. Although she chewed her food to mush she could not swallow it, and even water strangled her.

Physical examination revealed a surprisingly well nourished woman, who was apparently very nervous. Her voice was moderately hoarse. In the left supraclavicular region, 0.5 cm. above the clavicle and just lateral to the posterior border of the sternomastoid muscle, was a rounded prominence 2.5 by 3.5 cm. in diameter. It was not tender, but the patient stated that pressure over this area often caused food which she had just swallowed to appear again in her throat, whereupon her discomfort would be relieved. The physical examination was otherwise negative, and routine laboratory examinations revealed no abnormalities.

Fluoroscopic examination (by Dr. A. A. Rayle) revealed no abnormalities of the lungs, heart, or great vessels. When a barium meal was ingested a smooth oval diverticulum of the esophagus was immediately revealed to the left of the midline, at the level of the sternoclavicular joint. It pointed downward and the maximal diameter was approximately 4 cm. No connection could be demonstrated between the diverticulum and the supraclavicular swelling. After the diverticulum had been filled, barium readily passed down the normal channel; the patient regurgitated the contents of the sac shortly after the film had been made.

Operation was performed Sept. 11, 1941, under intravenous pentothal sodium anesthesia, supplemented by oxygen inhalations. Esophagoscopy was accomplished without difficulty by Dr. Murdock Equen. The diverticulum was located on the left posterior aspect of the esophagus just below the pharynx. It was evident that it would present a distinct obstruction to the passage of food. The opening, which was transverse to the long axis of the esophagus, was 1 cm. in diameter and seemed considerably larger than the diameter of the esophagus. It had a puckered appearance and somewhat resembled the opening into the pouch of an opossum.

The diverticulum was removed by the following technique: An incision three inches long was made over the pouch along the lower third of the posterior border of the left sternomastoid muscle, after the pouch had been made to present externally by pressure upon the esophagoscope. The muscle was retracted forward and the anterior layer of the deep cervical fascia was incised. The ceiling lights were then turned off, after which the lighted esophagoscope could be seen shining through the walls of the pouch and jugular vein.

The jugular vein, the carotid artery, and the vagus nerve in their sheath were retracted outward and backward. The left border of the thyroid gland, which slightly overlaid the pouch, was dissected free along its lateral border and was retracted inward, thus exposing the esophagus with the overlying recurrent laryngeal nerve. Because of the excellent exposure afforded by this approach it was a simple matter to free the pouch by blunt dissection up to its entrance into the esophagus. The neck of the sac was clamped and ligated close to the base. The area below and around the pouch was well packed with gauze, a clamp was applied over the ligature, and the diverticulum was excised with the cautery. The stump of the sac was invaginated and covered over with muscle, and the lower angle of the wound was packed with iodoform gauze. The incision was closed in layers.

The excised diverticulum was roughly pearshaped, the neck being the smaller end. It was 5 cm. in length, 1.5 cm. in diameter at the point of attachment, and 3.5 cm. at its greatest width, about 1 cm. above the base. The wall consisted of a thickened mucosal and a submucosal layer, with a few attenuated muscle fibers stretched along the outer surface.

The patient's recovery was entirely uneventful. For three days she was fed through a nasal tube which had been inserted at operation. Then oral feedings were permitted in gradually increasing amounts. The packing was removed on the second postoperative day, 48 hours

being regarded as adequate for protection by blockage of the lymph channels and tissue spaces against infection. There has been no return of symptoms to date.

COMMENT

General Considerations. Esophageal, or, more correctly, pharyngoesophageal diverticula are essentially herniations of the mucosa or submucosa of the esophagus through the muscular layers of that organ. They are relatively infrequent, although the literature on the subject, which has materially increased in recent years, might seem to suggest the contrary. The apparent increase, however, is probably due to improved accuracy of diagnosis.

The case just reported illustrates many important characteristics of esophageal diverticula. They are occasionally reported in youth or their existence can be traced back to youth, but they are definitely a disease of later life. The patient just described, who was 59 years of age, was in the usual age group. The incidence below 45 or 50 years of age is small. The ratio of males to females is generally stated to be 4:1. The location is fairly constant, in the midline, slightly to the left, of the posterior wall of the esophagus, just below the larynx and at the level of the cricoid cartilage. The blind pouch, which fills from the lumen of the esophagus, develops in the prevertebral space, behind or to the left of the esophagus, between the layers of the prevertebral and the pretracheal fascia.

The etiologic factors of esophageal diverticula are still disputed. A congenital origin is unlikely, in view of the age at which the condition usually develops. Thyroid disease and trauma are not universally applicable. More reasonable is the theory, first advanced by Bell, that ineffectual efforts to swallow, regardless of the cause, result in abnormal intrapharyngeal pressure, which is exerted at a point of localized weakness, the so-called pharyngeal dimple, between the fibers of the constrictor muscle as they pass around the esophagus posteriorly. At this point, as Zenker first noted, the canal is narrower than anywhere else, great pressure is frequently brought to bear upon the bolus of food as it is forced down the esophageal canal, and anteriorly there is only unyielding cricoid cartilage. Im-

proper mastication of food, such as is usual in patients with ill-fitting dentures, aggravates the circumstances.

Chevalier Jackson and his school have advanced a neurofunctional theory, in which they trace the condition to incoordination of the constrictor pharyngis inferior. This muscle has a pinch-cock mechanism, which, according to Jackson's theory, does not always function properly. As a result, the esophagus fails to relax and an unyielding barrier is presented to the advance of the bolus, which, by its pressure, first causes a dilatation and then a true diverticulum of the esophageal passage. The extreme nervousness complained of in the case reported herewith, which existed from the very beginning of the illness, suggests the validity of a neurofunctional mechanism in this patient.

Many diverticula are very small and give rise to no symptoms. Others may reach a large size and may come to occupy a considerable portion of the upper mediastinum. When once the diverticulum begins to form, a vicious circle is likely to be set up. As the pouch develops, the dysphagia, which was the original cause of its formation, increases in severity. Increased difficulty in swallowing results in an increased effort to perform the act. Increased effort naturally results in increased protrusion of the diverticula and in an increase in its size.

Symptoms always begin insidiously, as in the reported case, and may be of long duration, though 15 years, as in this case, is considerably longer than the average. In the classic instance the first symptom is the feeling of a foreign body in the throat, or of a dryness or scratchiness, which causes constant efforts to swallow. Pressure on the laryngeal nerve, which probably occurred in this case, or on the trachea, causes hoarseness and is also responsible for smothering sensations and dyspnea such as this patient complained of. Somewhat later in the illness the patient begins to regurgitate food, an act which he usually describes as vomiting. In the reported case this symptom was delayed for almost 13 years. Regurgitation, which is most likely to occur at night, is easily explained. When once herniation

has occurred, the diverticulum, being without adequate supporting musculature, begins to sag downward, and, as it becomes larger, to occlude the esophagus. When the sac is filled the lower or anterior edge of the opening into the diverticulum tends to be thrust out and against the anterior wall of the esophagus. The reason for this phenomenon is that the weight of the contents of the sac are borne chiefly by its posterior wall. As a result, when the sac is filled, the posterior wall of the sac and the posterior wall of the esophagus above it tend to form a continuous straight line. As a further result, the upper lip of the opening into the diverticulum is retracted posteriorly and is obliterated when the pouch is filled, while the lower lip is pushed forward, thus blocking the passage downward. In other words, occlusion occurs at the point of the opening into the diverticulum. It is not the result of pressure of the distended sac upon the esophagus, as is frequently but erroneously stated, but is instead caused by the distortion of the esophageal wall at the opening into the diverticulum.

Filling of the diverticulum, as has been noted, still further increases the forward position of the lower lip, and food must therefore pass into the diverticulum before it can pass into the esophagus, and it can continue downward into the stomach only after the sac is filled. The patient, as Maes expresses it, lives on the overflow of his diverticulum. When the sac is large enough to occlude the esophagus completely, which evidently was happening in the reported case just before the patient entered the hospital, no food at all can pass into the stomach. Regurgitation of food into the air passages is responsible for distressing coughing and choking. The characteristic and embarrassing gurgling and splashing which frequently accompany the ingestion of food was not observed in the reported case. Retrosternal pain, which appeared early in this case, is usually a late symptom. Some patients will state in their histories that they can relieve themselves by pressing on the affected side of the neck, which obviously empties the sac. Others will report that food can be taken satisfactorily in the reclining position, with the head and neck directed

downward. In this position the orifice of the diverticulum is directed downward and food does not enter it.

The presence of retained, decomposing food leads to such complications as inflammation, with the formation of adhesions which may complicate surgery; ulceration, perforation, malignant degeneration, aspiration pneumonia, lung abscess, and mediastinitis. I have no doubt that the pneumonia suffered by my patient 18 months before operation was of the aspiration variety.

The symptoms of esophageal diverticulum are eventually characteristic, though the diagnosis is usually overlooked until the patient consults a physician who recollects the possibility and submits him to x-ray examination. The reported patient's experience with several physicians before her true condition was realized is quite typical, particularly her treatment by an otolaryngologist for laryngitis. The roentgenologic findings in this case were characteristic. As the barium is swallowed, the sac is seen to fill before the esophagus. Then, if the esophagus is not completely occluded, the food passes into the stomach. If complete occlusion has occurred, the opaque substance is halted at the level of the occlusion. When the muscles of deglutition contract, a small amount of retained barium can sometimes be forced out of the sac.

The use of bougies and sounds for diagnosis is not recommended, as they are dangerous, and they supply no information which cannot be better secured by other methods. Esophagoscopy, though a safe and useful procedure in the hands of a skilled physician, is extremely dangerous in the hands of the unskilled. One precaution is always necessary: the esophagoscope should be introduced by following the anterior wall of the esophageal canal. The rationale of this precaution is easy to comprehend. Diverticula usually lie slightly beyond the midline, and for mechanical reasons, as in my case, they are most frequently located to the left. The weight of its contents gradually pulls the sac beneath the pharynx, so that its opening eventually appears as a transverse slit in the posterior wall of the esophagus, directly in line with the esophagus.

phageal wall above it. The opening into the esophagus itself is displaced anteriorly, out of the direct line, and if the possibility of this altered relationship is not borne in mind, and if the esophagoscope is not introduced along the anterior wall, perforation is a real danger and many instances of it have been reported.

The differential diagnosis includes cardiospasm, foreign bodies, globus hystericus, dysphagia of nonorganic origin; and tumors, chiefly of the malignant variety. The differential diagnosis of carcinoma is most important, since the treatment of the two conditions is radically different. Although regurgitation of food, which does not contain hydrochloric acid since it does not reach the stomach, is common to both diseases, the choking, coughing, and dyspnea present in diverticula do not occur in malignancy. Roentgenologic examination usually establishes the diagnosis. If it does not, biopsy should be done without delay.

Therapy. In the occasional patient who obstinately refuses surgery, palliative measures, such as a restricted diet, which must be worked out by the trial and error method, dilatation of the esophagus, or the wearing of a thread, may give some relief. The condition, however, is progressive, and the surgeon is entirely justified in warning the patient that these measures are undesirable in themselves and that he may expect inevitably to reach a point at which, because of inanition and anatomic difficulties, operation will be attended with serious risk.

Although numerous operations have been devised for the relief of diverticula, actually the chief point at issue is whether the operation shall be done in one or in two stages. Lahey, who is an ardent advocate of the two-stage method, has used it in 118 cases with only one death, due to uremia. Shallow and his associates, who advocate the one-stage procedure, had 4 deaths in 99 cases. Babcock, who also advocates the one-stage operation, had 1 death in 46 cases. None of the fatalities in either of the latter series was due to mediastinitis, which is the most frequently cited objection to the one-stage procedure. Babcock considers the risk of this complication exaggerated, and Shallow states that, with improvement in tech-

nic, the possibility of its occurrence has become very remote.

The plan of the Mayo Clinic, which is to fit the operation to the necessities of the individual case, seems the wise solution of the argument. The two-stage operation, according to Harrington's recent report of 227 cases, was used in 180 instances and the one-stage operation in 47. In the case here reported the patient was in good condition and more, important, there were no adhesions. In addition, the diverticulum had a well developed neck, so that amputation flush with the esophageal wall was possible, without injury to the wall. Operation must always be performed with the esophagoscope in place if general anesthesia is used.

A distinct advantage of the one-stage procedure is that dilatation of the esophagus is not necessary afterwards, as it frequently is in the two-stage procedure. Another advantage, pointed out by Harrington, is that the chances of recurrence are less because the sac is completely visualized and accurate removal is possible.

Surgical Approach. Attention is called to the incision used in this case, along the posterior border of the left sternomastoid muscle, which seems to offer several advantages over the usual incision along the anterior border. Examination of the neck in cross section at the level of the seventh cervical vertebrae shows that when a diverticulum, with the esophagoscope in place, is made to present at this point, the most unobstructed access to the sac is along the fascia of the anterior layer of the carotid sheath. Approach along this fascia seems preferable to the route described by Hershey, along the prevertebral fascia, since no structures of importance are encountered except the vagus nerve, common carotid artery, and jugular vein, all of which are easy of identification and are contained in a protective fascial sheath. When this sheath with its contents is displaced posteriorly and the sternomastoid and omohoid muscles are displaced anteriorly, approach to the diverticulum is uninterrupted.

Furthermore, when incision is made along the posterior border of the sternomastoid muscle, the nerves of the superficial cervical plexus are not disturbed and the structures

of the thyroid gland offer little obstruction to the operative field. When an anterior incision is used the overlapping left lobe of the thyroid gland presents as a definite obstacle and must be retracted centrally, which introduces the possibility of pressure on the trachea.

Summary

A case of esophageal diverticulum of unusually long duration is presented. Attention is called to a modification of the surgical technic by approach to the sac through an incision along the posterior border of the sternomastoid muscle, with posterior retraction of the carotid sheath and its contents.

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PRIORITY OF THE MURRAY-NELSON-HULSMAN ORIGINAL METHOD FOR AVOIDING PERFORATION IN SUBMUCOUS RESECTION

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Dr. Louis F. Hulsman of Shelbyville, Indiana, is credited by the Quarterly Review of Otolaryngology for June, 1942, pages 189 and 190, with quotations from the Eye, Ear, Nose and Throat Monthly for May, 1942, under the title "Technique of Avoiding Perforation in Septal Resection," as the originator of a new method, described by Dr. Hulsman as follows:

"A slanting incision is made in the mucous membrane of the septum on one side down to the cartilage and the mucous membrane entirely separated from the cartilage and held by a retractor by an assistant. A slanting incision is next made in the cartilage $\frac{1}{4}$ inch posterior to the mucosal incision; the same procedure is carried out on the other side; the operation is completed by removing as much of the septal cartilage and bony structure as is necessary in each case. After the

resection is complete the two sides of the mucous membrane are brought in perfect apposition. The slanting incisions, and making the cartilage incision $\frac{1}{4}$ inch distant from the mucosal incision protect against perforation, the author has found."

During my service as chief of the eye and ear clinic of Colon Hospital, Panama Canal, under the late Surgeon General W. C. Gorgas, U. S. Army, then Chief Sanitary Officer, an article of mine appeared in *The Journal of the American Medical Association* for Nov. 19, 1910, vol. LV. p. 1785, entitled "An Original Method for Prevention of Perforation in Submucous Resection" and illustrated with one drawing. In this article I said "In looking for an explanation of this I noted that in no case had any two 'button holes' been made opposite one another. The idea naturally suggested itself to apply this principle in making the initial incisions. In the next operation after making the first incision through the mucous membrane, etc., down to the cartilage and separating the membrane from it as far back as necessary, instead of cutting through the cartilage at the same line of incision followed in going through the membrane, the cartilage was carefully cut through from $\frac{1}{8}$ to $\frac{1}{4}$ inch posterior to the incision through the mucous membrane. The rest of the operation was done after the usual methods. At the close of the operation, instead of the cartilage being cut off flush with the incision through the mucous membrane, there was left a projecting ledge of cartilage extending from $\frac{1}{8}$ to $\frac{1}{4}$ of an inch posteriorly from the line of the incision. In bringing the raw surfaces of the mucous membrane together this projecting ledge of cartilage was found not only to be completely covered over, but also to appear to aid very materially in holding the edges of the wound in close apposition, acting somewhat as a natural splint. I have tried this method in a series of cases with uniform results without a perforation, and I would state that in my opinion with ordinary care and reasonable exercise of even moderate skill it is practically impossible to produce a perforation in using this method of making the primary incisions."

Three years later, in April 1913, at the Savannah meeting of the Medical Association of Georgia, I read another paper en-

titled "Further Experience with A Method for Prevention of Perforation in Submucous Resection." This article was later published in THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA. In this article I reported 136 operations done in my Panama Clinic by my able associates, Drs. Charles M. Strotz and John J. McLoone, and myself. Only three perforations occurred, none preventable by this technique, as none was at the site of the primary incisions.

I have no doubt that Dr. Hulsman, like myself, evolved this valuable technique out of his own experience and needs, thinking it original, and like myself blissfully ignorant of the fact that in 1907 the same technique was described in an article appearing in the St. Paul Medical Journal from the pen of the late Dr. Wm. R. Murray, Professor of Ear, Nose, and Throat, University of Minnesota. Before the Nov. 19, 1910, copy of *The Journal of the A. M. A.*, containing my article, reached me in Panama, I received a marked reprint of Dr. Murray's article from him. And shortly thereafter *The Journal* published my letter giving full credit for priority to Dr. Murray for this technique, as proved by his article published three years before, and from which I quoted.

For thirty-four years I have continued the use of this valuable technique first described thirty-six years ago, with to date not a single perforation in any case in which this technique was followed. Many nasal surgeons throughout the United States have reported to me similar results using this technique, which Professor Murray was so generous as to call "our method" in his last letter to me before his death.

If priority were the only important issue involved I would not have written this article. But years of excellent results with this method for the prevention of perforation in submucous resection in many competent hands have established its value beyond the shadow of a doubt. Therefore, I write this mainly to urge all nasal surgeons everywhere to give it the universal trial it so richly deserves, because I am sure that with this method they will find that perforations are as easy to avoid, as they are easy to make when not using this simple technique.

TETANUS FOLLOWING INTESTINAL SURGERY

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Tetanus is a very rare disease, but tetanus following intestinal surgery is exceedingly rare and when it does occur is quite tragic. In 67,188 admissions at the Georgia Baptist Hospital, Atlanta, in the past 10 years there were only four cases of tetanus following all types of injuries. We have found only 47 cases of tetanus following intestinal surgery in the American and British literature. This is rather remarkable when we read reports from Tullock,² who found *B. tetani* in 33.3 per cent of soldiers' stools; and Holt,³ who reported the incidence of *B. tetani* in children's stools up to 30 per cent according to locality. It seems that with the intestines harboring the tetanus bacillus to this extent we would see more cases of tetanus following intestinal surgery.

We have seriously considered the advisability of giving prophylaxis to all intestinal surgical cases but realized, after some review of the literature, that the morbidity from the inoculation would far surpass that of the disease. In fact Wainwright⁴ has advised that many of the inoculations now being given in emergency clinics are useless.

Of the above mentioned 47 cases nine were from New South Wales, Eng.,⁵ and were rather conclusively shown to be due to contaminated catgut rather than from intestinal contents.

Report of Case

S. D., white male, aged 11, was admitted to the surgical service of Georgia Baptist Hospital Feb. 23, 1943. Three days prior to admission he was struck in the lower abdomen with a stick while playing with his brothers and sisters. He cried at the time but in a short while returned to his playing. That night he ate no supper and about dark he began complaining of cramping in his abdomen, which continued to get worse, and he vomited several times during the night. His father gave him some "Black Draught" the next morning. He continued to have colicky pain in his abdomen and to vomit. The vomitus on several occasions contained round worms about 6 inches long. The next day he continued along the same downhill course and had a watery blood-tinged stool. He was then taken to a local physician, who sent him to the hospital.

Upon arrival he was found to be quite ill, was dehydrated, very dirty, and moaning continuously between seizures of vomiting. He had another watery blood-tinged stool and vomited two ascaris worms while we were examining him. He was small, undernourished and emaciated. Lungs clear and resonant. Heart rate fast (140) but otherwise normal. Abdomen distended, quite tender with an exquisitely tender mass in the lower abdomen. On auscultation many gurgles and tinkles were heard. No lacerations were demonstrable on his body.

Preoperative diagnosis of intussusception was made and he was prepared for surgery immediately. A low paramedian incision was made under pentothal sodium anesthesia and an intussusception was found in the terminal portion of the ileum. Many ascaris worms could be visualized through the gut wall, and the entire mass seemed to be solid with these worms. There were several gangrenous areas in the mass and, as an attempt to reduce the intussusception was made, two worms ruptured through one of these areas and began to emerge from the mass. It became evident that this portion of ileum must be resected and an end-to-end anastomosis was done, resecting the entire mass. The appendix contained one of these worms and stood erect. Appendectomy was done. Five grams of sulfanilamide crystals were placed in the abdominal cavity and the abdomen was closed in the usual manner.

The specimen was found to contain 28 ascaris worms.

The patient's postoperative course was quite gratifying as he rapidly improved after taking 500 cc. of plasma, 30 grains sulfanilamide subcutaneously and several ampules of digifolin and succinylsulfathiazole by mouth. He was given soft diet on the fourth day. On the morning of the seventh postoperative day he got his tongue caught between his teeth and could not remove it. We pried his jaws apart, allowing the tongue to escape. By noon his neck was stiff and his face presented the typical risus sardonius of tetanus, and he was quite irritable. Lumbar puncture was done and when the fluid was found to be clear he was given 20,000 units of antitetanic serum intraspinally. Immediately following the puncture he had his first convulsion during which he presented opisthotonus.

He was given 60,000 units of antitetanic serum intravenously. He had several more convulsions which were controlled with sodium luminal intravenously; then he was given avertin by rectum as a basal anesthesia which was quite successful in preventing convulsions. The next morning he was given 40,000 units of antitetanic serum intravenously. He was also given 40 grains of sulfanilamide subcutaneously twice daily. His temperature spiked to 105 several times and he died in a convulsive seizure on March 11 (11th postoperative day).

Autopsy showed death was due to toxic myocarditis with failure. The abdominal incision was well on the way to healing. The anastomosis was well healed but there was a small abscess in the mesentery near the sight of the anastomosis. Many more ascaris worms were found in the colon. The total number of ascaris recovered either at operation, autopsy or passed per vomitus or per rectum was 58. No tetanus organisms could be grown from the abdominal contents.

Comment

We feel that the *B. tetani* in this case were introduced by contamination of the abdominal cavity by fecal material, although we saw no remarkable break in standard intestinal surgical technic. The catgut used was from the regular sterile supply which is manufactured in glass tubes by a well known American suture manufacturer. The manufacturer had previously cultured a sample of this catgut and reported it sterile. The tube of gut was sterilized by placing it in 5 per cent carbolic acid for at least 24 hours previous to use.

We don't feel that the bacillus was introduced by the personnel of the operating room for all of those scrubbed were on the regular surgical team and none knew of any break of technic.

Sulfanilamide has been mentioned as probably being of some help in controlling the local growth of *B. tetani*. It is true we could not culture *B. tetani* from the abdominal contents, yet the bacillus must certainly have grown to have elaborated enough toxin to cause the tragic results.

This was indeed an interesting case because of the rarity with which we see worms causing intussusception because of appendicitis and because of the tetanus following intestinal surgery. We feel the lessons to be learned from this case are: that we met with a very rare condition and that should this same thing occur again our only variation of treatment would be earlier administration of large quantities of serum.

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Post-War TB Control by Howard W. Blakeslee, Science Editor, Associated Press. The well known science editor, Howard W. Blakeslee, discusses present wartime activity in fighting tuberculosis from the standpoint that "the foundation for ending tuberculosis is now being laid and the outlook for success is good." He points out that certain major records—the chest X-raying of men entering the armed forces and the extension of the chest X-ray service for war workers—is bringing tuberculosis to light as never before and says that such momentum promises success for the post-war control of this disease.

THE PRESIDENT'S PAGE

GIVING AND LENDING

On every radio program and in every daily press appeal for weeks, we have heard pleas for the Third Victory Loan. That loan has been oversubscribed throughout America! Other loan quotas must soon be met, and other loan quotas will be met as long as patriotic American citizens are left on the home front to "pass the ammunition" to our boys on the battle front. Never in the history of the world has there been such united determination of the civilized countries to utterly destroy the rule of murderers and assassins as exhibited by Germany and Japan.

If anyone in America thinks that too much of his money is being taken in taxes, in gifts or in loans, let him but ask himself two questions: first, in what other way have we in raising this necessary money; and second, just how much he thinks he will enjoy his property or money if we should lose this war?

The doctors of Georgia and of the United States have given of their services to such an extent, that the military authorities in Washington have left the procurement of the physician personnel to the physicians themselves, through the plan as outlined by the American Medical Association. How well this plan has worked may be surmised, as there has been no move on the part of the War Manpower Commission to change it. Georgia, with the exception of her larger cities, had a shortage of doctors before the war, and now with a large per cent of them in the armed forces, there is extra work for every doctor left. However, these doctors are working night and day, without complaint, to see that no one suffers for the lack of medical care.



There is still an obligation that every physician of Georgia should feel: that of buying war bonds. There is now a wave of prosperity as never before seen in this State. Many patients who formerly had to patronize charity hospitals or free clinics are now able to pay for medical treatment. More people now carry hospitalization insurance than ever before, enabling them to use their money for medical or surgical service, and even these are included in some insurance policies. These factors all contribute to an increase in the doctor's income. How better can a doctor help his fellow doctor and fellow man than buying war bonds? It helps *them* now, and will help *him* later.

W. A. SELMAN, M.D.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

OCTOBER, 1943

THE WAGNER-MURRAY BILL

From a medical standpoint the Wagner-Murray Bill, Senate Bill 1161, is one of the most vicious pieces of legislation ever presented to the Congress of the United States. However, to a casual observer or one who simply reads the caption "it looks good" and will be swallowed "bait, hook and line" by many confiding people; yet as practical Americans we must count the cost before we endorse it, and we must consider how much of our liberty it will destroy.

If the bill had its proper title it would be known as the "Compulsory Social Insurance Act." The subject matter is considered under eleven divisions, with the first nine of which we as physicians have no fight, except to condemn the enormous tax levy, spoken of as a "contribution." The bill very cleverly omits the word "tax."

If this measure is passed in its present form it will bankrupt the nation. Our citizens are divided into three groups:

1. Employers who must pay a tax of 6 per cent on the salary or wages of everyone in their employ;
2. Employees who must pay a 6 per cent tax on their wages or salary up to \$3,000, or employees of the Federal government, states and political subdivisions who will be taxed at 3½ per cent up to \$3,000, if the states take proper steps to secure this reduction;
3. Self-employed individuals who are taxed 7 per cent on the estimated market value of their incomes.

This Wagner bill throws out the greatest tax dragnet ever conceived by an American citizen. It is far worse than the taxes imposed by Caesar Augustus on citizens of Rome's conquered provinces. It is estimated that the full levy will amount to something like six billion dollars annually. Half of this enormous sum will be devoted to medical and hospital care. But how is it to be administered? Solely by one man: the Surgeon General of the United States Public Health Service. It is true that the

bill requires him to select an advisory committee of 16 members, with himself as chairman, but it does not specify that any doctor be included in the number. Even if a doctor were appointed to the committee he would have no voice in the administration of the Trust Fund or any feature of the bill. He could only "advise" and draw \$25 per diem for his services.

This measure will affect 110,000,000 American citizens, who will be compelled to pay into the U. S. Treasury from \$6 to \$210 annually. The bill provides that a patient may select his own doctor from the list of *general practitioners* furnished for the community by the Surgeon General. One cannot select a specialist; that is done for you by the general practitioner. The Surgeon General is to fix all fees for the doctors, but the bill provides that hospitals are to be paid from \$3 to \$6 per day for the 30 hospitalization days allowed in each year. If one is *not* fortunate enough to get well in 30 days, or should you have a second attack during the year, the time may be extended to 90 days, if there are sufficient funds in the Trust Fund and the Surgeon General is willing; but the hospital will get only \$1.50 to \$4 per day for this second hospitalization period. For chronic patients the rate will be \$1.50 to \$3 per day.

The bill provides that a physician, as he may see fit, agree or not agree to work under the provisions set forth. However, as all the people will be taxed to provide medical care, how many will be willing to pay the tax and, in addition, pay doctors' bills? Not many. So the doctor who does not agree to the terms of this bill will soon be without a practice.

The bill provides only for the care of those who are fully insured under the provisions set forth in its pages. How will the poor tenant farmers, the sharecroppers, and the farm hands of our rural districts become fully insured? There are 80,000 of them in Georgia. Their average income is only \$50 to \$150 per year. They are scattered throughout the State and about 30 per cent of them move once a year. It would take the tax organization of Egypt or Rome to collect these taxes, if they had any money with which to pay.

Now, for years the medical profession has been trying to do something for these poverty-stricken people of our rural districts. The doctors feel that any plan suggested must include medical and nursing care for these people. The Federal Security Administration has functioned well in some sections of our country, but not without drawbacks. Other plans are being tried out, but none of them is as yet perfect.

We believe that the American medical profession has performed the most stupendous tasks ever undertaken by any group of people. The elimination of infectious and contagious diseases has been remarkable; the expectancy of human life has been prolonged from 42 to 64 years during the present century; the great epidemics that plagued mankind during the Middle Ages and up to the latter fourth of the 19th century have been banished. Those people in our low income group are not as well cared for as we would like, but the death rate among them must not be so very high or it would cut down the life expectancy of the nation.

We hope every doctor in Georgia will sit down *now* and write his Senators and his Representative, urging them to oppose the Wagner-Murray Senate Bill 1161. In addition, we hope you will get the editor of your county paper to come out strongly against this measure. Tell him about the extra taxes he will have to pay. We must all pull together for future generations and the good of the people. Georgia expects every citizen to do his duty.

J. L. CAMPBELL, M.D.

NOTES ON METABOLISM AND OBESITY

The big thing in metabolism is heat production. This results from the use and consumption of oxygen. Muscles and glands are the only body structures producing heat to the thermocouple.

The temperature of the gluteal skin was 92.6, of subcutaneous fat 88, of muscle 99.2, mouth 98.6, intravenous 95.4, intra-arterial 99.2.

Muscle is the important source of heat production. The B.M.R. is the heat production per unit of body surface in a unit of

time and under basal conditions. In a normal weight subject the muscle and gland tissue are in proportion to the body surface. If there is edema or obesity the B.M.R. estimation is not accurate and must not be taken too seriously. Metabolism is higher in the fat subject, for the muscles and glands must work harder to maintain the body heat. An overweight with normal muscles and glands has an elevated B.M.R.

The higher the weight, as a rule, the higher the metabolism — also the pulse, systolic blood pressure and pulse pressure — conditions found also in hyperthyroidism.

Loss of weight is not in muscles or glands, but fat and fluid. Thyroid, benzedrine and dinitrophenol are metabolic stimulants. Thyroid is not to be used for reduction. On a sub-maintenance diet the metabolism falls at once. Subjective inertia on a low diet for obesity is an indication for thyroid extract only to correct the low metabolism. One grain a day, increased to three, results in subjective improvement. Benzedrine, 5 mg. confers pep but not much metabolic effect.

Fat does not insulate the body heat. Less clothing is required because of the accompanying higher metabolism.

Over-weight affects the breathing apparatus. Anything interfering with the free motion of the ribs or diaphragm interferes with the respiratory vital capacity, the oxygen-carbondioxide exchange. Normally the cervico-dorso-lumbar curve is not great. With excessive weight gain there ensues, for purposes of center of gravity, lordosis of the cervical and lumbar spines and kyphosis of the dorsal spine. With the onset of dorsal kyphosis there is a tendency to fixation of the ribs and diaphragm and flaring of the ribs, called barrel chest. The diaphragm comes down because of increased diameter and mesenteric pull. Due to the decreased air there is apt to be found polycythemia.

The subject cannot restore his normal spinal curves by reduction. He has lost height.

W. W. BLACKMAN, M.D.

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

EMERGENCY MATERNITY AND INFANT CARE PROGRAM

A plan to provide maternity and infant care for wives and infants of enlisted men in the armed forces was approved by the Advisory Committee to the Georgia Department of Public Health and the Council of the Medical Association of Georgia on July 28, 1943, and became effective on a state-wide basis on September 15, 1943.

The care provided by this plan is available to the wives and infants of men in grades four, five, six and seven in the armed forces. These grades include private, private first class, corporal and sergeant in the Army and comparable grades in the Coast Guard, Navy and Marine Corps. Wives and infants of men in these grades are eligible for this care regardless of length of residence in the State.

The program is to be administered by the Georgia Department of Public Health through its Division of Maternal and Child Health. The plan submitted for approval of the representatives of the Medical Association was drawn up by the Georgia Department of Public Health but was formulated in accordance with outline prepared by the Children's Bureau of the U. S. Department of Labor. The plan was modified for Georgia to the extent that regulations of the Federal Agency would permit. Modified plans had been submitted by the Health Department to the Children's Bureau on previous occasions but were disapproved in each instance.

The medical fees provided by the plan are not consistent with usual charges, but the Advisory Committee and the Council felt that members of the Medical Association should help provide the necessary services as a patriotic duty. The representatives stated that this program received their approval *only* as a war measure and that this approval was limited to the duration of the war and six months thereafter.

A large volume of detail work had to be done before the program could be inaugurated. For example, every hospital in Georgia had to be contacted to determine if it would be interested in participating in the program. Those hospitals expressing interest had to be inspected to ascertain if they met certain minimum requirements of the Children's Bureau. In addition, each participating hospital is required to calculate its per diem cost based on a year's operation expenditures. Such financial statements must be certified by a competent public accountant or notary public. Otherwise maximum charges per day cannot exceed \$4.25 for hospital care, and must include all services provided by the hospital. Flat per diem rate cannot be supplemented by making charges for any special supplies or

services. All of these procedures require time. Representatives of the Division of Maternal and Child Health have contacted hospitals, and those institutions which meet requirements will be listed as available for acceptance of these cases. Physicians must use hospitals on list accompanying application form. Otherwise, physicians cannot be paid for services provided. Home delivery is permitted.

Application forms requesting care can be obtained at military posts, Red Cross Chapters, local health departments, etc. The application form must be completed by the applicant and the practitioner agreeing to render the medical service. The individual practitioner will decide whether or not he wishes to accept the case. The form when completed by applicant and physician will be forwarded to the Division of Maternal and Child Health. If the application is in order and funds are available, the applicant will be notified that case is accepted. The practitioner will be authorized to accept case and will be sent forms to be returned when services are completed or case is dismissed. Payment will be made directly to the practitioner. If the application contains requests for hospital care in a participating hospital, such hospital will be authorized to render care to the case for a specified number of days. Physicians cannot be paid for maternity care unless patient is delivered in hospital on participating list or is delivered at home.

The practitioner will be supplied with case record when authorization is sent and case record is to be returned with statement of charges. In the case of infants, the practitioner will send application following first visit and an authorization and case record will be returned if the case is eligible under the plan.

Fees for maternity service are considered by many physicians in Georgia to be inadequate and it is admitted that the fees allowed are not consistent with charges made at present in many localities. For complete obstetric care, including a minimum of five prenatal visits following approval of application, the physician is allowed the sum of \$40.00. For prenatal visits less than five in number the physician will be paid at the rate of \$2.00 per prenatal visit, provided these visits are made following date of approval of application. For delivery and postpartum care, a fee of \$30.00 per case is permitted. If postpartum care is not provided, \$5.00 will be deducted from fee for delivery and postpartum care. Forty dollars is the maximum amount a physician may receive per maternity case regardless of services rendered, whether condition treated is related to pregnancy or not. The physician is not permitted to charge patient for any

services rendered that are provided for in the plan.

Consultants may be utilized but they must qualify as consultants. Until a list of consultants is made available, cases may be referred to those physicians who (1) limit their work to a specialty or (2) who are members of or eligible for membership in the respective American Board or (3) those who have had two years postgraduate work in the specialty concerned. Fees for consultants are as follows: For case consultation, a fee of \$10.00 is allowed per physician for each illness for which consultation is authorized; when consultant assumes complete charge of the case during or prior to delivery at the request of the referring physician, the consultant is eligible to receive charges at prevailing rates, provided he does not receive in excess of \$40.00 per case.

Visits to sick infants under one year of age will be paid for at the rate of \$2.00 each when authorized. Maximum expenditure for authorization is \$20.00 per case for a three week period; thus allowing ten visits per case during the three weeks period. No fees for circumcisions are allowed as a part of newborn care. Consultants on pediatric cases (infants under one year of age) must meet qualifications outlined above under obstetric service. Consultants will be paid a fee of \$3.00 per visit and four visits will be authorized, thus limiting charges to \$12.00 per authorization. Fees for minor surgical procedures will be paid at the rate of \$15.00 per operation. Major surgical procedures will be paid at the rate of \$35.00 per operation.

Military facilities will be utilized when available. Members of military medical corps will not be paid for any medical services rendered.

It is important for the medical profession to realize that the Georgia Department of Public Health is not responsible for expenses incurred unless and until the physician has received from the department a specific authorization for each individual case, setting forth the service to be provided. In the case of consultants, it will be necessary to request authorization and to state services needed. All emergency cases must of necessity be accepted by the physician on his own responsibility pending review of the case and authorization. These funds cannot be used to pay for services rendered prior to application unless circumstances are such as to establish that it would have been impossible to have secured authorization previously.

To date very few hospitals have qualified for participation. However, the list will be kept up-to-date and will be distributed with the application forms. Only participating hospitals will be utilized.

When consultants are utilized, the physician should inform this office so that an authorization and report form can be sent to the consultant. Otherwise, payment cannot be made.

A number of physicians and hospitals have

expressed an unwillingness to participate in this program. The decision is on an individual basis. The Georgia Department of Public Health is in the position of administering the plan to the best of its ability. It is not our intention to influence the decision of those affected but it is desired that all concerned be informed of the plan.

EDWIN R. WATSON, M.D.

NEWS ITEMS

The Georgia Medical Society (Savannah) met on October 12. A motion picture on "Hormones" produced by Parke, Davis & Company, Detroit, Mich., was shown.

The Eighth District Medical Society met at the Y. M. C. A. Auditorium, Waycross, October 12. Titles of scientific papers on the program were: "The Control of Gonorrhea" by Dr. Allston Gourdin, Brunswick, U. S. P. Health Service; "Fever Therapy in the Treatment of Syphilis and Other Venereal Diseases," Dr. Allen E. Walker, Jacksonville, Fla., U. S. P. Health Service; "Address" by the President of the Medical Association of Georgia, Dr. W. A. Selman, Atlanta. Dr. T. V. Willis, Brunswick, president, presided; Rev. Albert S. Trulock, Waycross, delivered the "invocation"; Dr. J. E. Penland, Waycross, "Address of Welcome"; Dr. Raymond Smith, Hahira, "Response to the Address of Welcome."

The staff meeting of the Department of Medicine of Grady Hospital, Atlanta, met on October 10. Titles of cases reported were: Therapeutic Pneumothorax, "Coarctation of the Aorta," and Pernicious Anemia in the Negro."

The Second District Medical Society met at Bainbridge October 14. Titles of scientific papers on the program were "An Operation to Relieve Pruritus Vulvae—Report of Three Successful Operations," Dr. Chas. K. Wall, Thomasville; "Caudal Anesthesia in Obstetrics," Capt. Brown H. Carpenter, M. C., Air Base, Bainbridge; "Cancer of the Breast," Dr. C. W. Roberts, Atlanta; "Pediatrics," Dr. W. L. Wilkinson, Bainbridge; "Medicine," Dr. Alexander R. Freeman, Albany; "Informative Discussion on Socialization of Medicine," Major Hilton Read, chief of Medical Staff, Finney General Hospital, Thomasville. Officers of the society: Dr. C. S. Pittman, president, Tifton; Dr. R. M. Joiner, vice-president, Moultrie; Dr. J. C. Brim, secretary-treasurer, Pelham.

The Department of Tropical Medicine of Emory University School of Medicine sponsored an address by Dr. Donald S. Martin, of Duke University School of Medicine, Durham, N. C., on "Blastomycosis" on September 17.

Dr. W. R. McCoy, formerly of Folkston, has moved to Claxton for the practice of medicine in Evans and adjoining counties.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, October 4. Dr. Walter S. Maclay, officer of British Empire, chief of Mill Hill Emergency Hospital, London, England, spoke on "Neuroses in Civilians."

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1943-44

President—Lillian O. Nelson, Atlanta.

First Vice-President—Sister Mary Cornile, Atlanta.

Second Vice-President—Vera Mingledorff, Griffin.

Secretary—Mrs. Esther Watts, Columbus.

Treasurer—Jane Van De Vrede, Smyrna.

Chairman, Private Duty Section, G.S.N.A.—Mrs. Lilye W. Goodrum Geeslin, Atlanta.

President—Georgia League of Nursing Education, Ruth Babin, Atlanta.

President—Georgia State Organization for Public Health Nursing, Mrs. Gladys Lilly Garland, Atlanta.

Chairman—State Nursing Council for War Service, Frieda Grefe, Savannah.

Executive Secretary and Chairman—Procurement and Assignment Committee, State Nursing Council for War Service, Mrs. Mildred B. Pryse: Headquarters, 131 Forrest Ave., N. E., Atlanta. Phone Walnut 8911; residence, VERNON 1230.

Executive Secretary—Durice Dickerson; headquarters 131 Forrest Ave., N. E., Atlanta; phone Walnut 8911; residence, JACKSON 7979.



MISS LILLIAN O. NELSON, President
Atlanta

THE THIRTY-SEVENTH ANNUAL BUSINESS SESSION

The Georgia State Nurses' Association and her Private Duty Section, held a joint annual meeting with the Georgia League of Nursing Education, the State Organization for Public Health Nursing, and the State Nursing Council for War Service, Sept. 26, 27, 28, 1943, at Atlanta, with headquarters at the Henry Grady Hotel.

G.S.N.A. OFFICERS ELECTED

Miss Lillian O. Nelson, director of nursing

education, Piedmont Hospital, Atlanta, was elected president of the Georgia State Nurses' Association.

Miss Vera Mingledorff, consultant nurse for Georgia Public Health Department for the West Central Region, Griffin, was elected 2nd vice-president.

Miss Jane Van DeVrede, inactive nurse, Smyrna, was re-elected treasurer. Miss Van DeVrede has served in this position for nineteen years, and the Association expressed appreciation for her faithful and efficient service.

Miss Frieda Grefe, retiring president, was elected director, after serving two terms as president. Miss Grefe is an industrial nurse in charge of the nursing service at the Savannah Sugar Refinery Corporation, Savannah.

Miss Genevieve Garren, director of nurses, Piedmont Hospital, Atlanta, was re-elected director.

Miss Durice Dickerson, Atlanta, remains in office as executive secretary of the Georgia State Nurses' Association.

Mrs. Gladys Lilly Garland, a supervisor on nursing staff of the Fulton County Health Department, Atlanta, was elected president of the Georgia State Organization for Public Health Nursing.

Miss Ruth Babin, director of nursing, Crawford Long Hospital, Atlanta, remained in office to complete her two-year term as president of the Georgia League of Nursing Education.

Mrs. Lilye W. Goodrum Geeslin, private duty nurse, Atlanta, was elected chairman of the Private Duty Section, G.S.N.A.

Miss Frieda Grefe, of Savannah, remained in the office as chairman of the State Nursing Council for War Service. This Council is a section of the Georgia State Nurses' Association, and its activities are financed by the main body. Mrs. Mildred B. Pryse, Atlanta, was appointed executive secretary of the Council and chairman of the Procurement and Assignment Committee for the Council.

NATIONAL GUEST SPEAKER

Miss L. Louise Baker, assistant executive director, Nursing Division, War Manpower Com-

mission, from Washington, D. C., addressed the Association, stressing the urgent need for further and better organization of Procurement and Assignment committees for State, district and local Councils. The work of the committees will determine success or failure in meeting the need for military, federal and civilian nursing service. Directives for the work of these committees are being distributed.

LOCAL SPEAKERS

Dr. Harrison Walker, director, Regional Office, Emergency Medical Service, Office of Civilian Defense, and Dr. Edwin R. Watson, deputy chief, Emergency Medical Service, Atlanta, were speakers at a special session and discussed organization of nurses' units in Georgia to assist with emergency work.

Miss Phoebe M. Kandal, professor of nursing education, University of Georgia, appointed September, 1943, was presented to the Association and discussed the plans for nursing education which have been sponsored by the Georgia League of Nursing Education and allied nursing groups. Miss Kandal is vice-president of the National League of Nursing Education. The great need for prepared teachers for schools of nursing and community nursing service as well as for enrichment of the basic nursing program was stressed and the state nursing groups unanimously adopted a resolution.

1944 ANNUAL SESSION

Selection of the type, place, and date, of the 1944 annual meeting was referred to the executive board of G.S.N.A. and will be decided by that group at the first board meeting held in 1944.

UNIVERSITY OF GEORGIA OFFERS NURSING EDUCATION

A special leaflet was distributed at this annual meeting, entitled *Georgia Schools of Nursing Offer Free Training With Pay—U. S. Cadet Nurse Corps*. It was reported that three of the Atlanta schools of nursing had established a central pre-clinical program of six months, cooperating with the Atlanta Junior College; 137 cadet students in September class started their school work at Atlanta Junior College, Sept. 27. Other schools reported established college affiliations and still others reported plans under way. It was reported that all 17 of Georgia's accredited schools of nursing could qualify for the Cadet Nurse Corps program.

SPECIAL ACTIONS TAKEN

1. Reorganization of, and adoption of rules for Georgia State Nursing Council for War Service were made. So far as possible the same officers and members of the Council will remain in office to carry forward the work of the Council.

2. Service Poster Displayed At Annual Meeting. A special tribute was extended all Georgia nurses serving in the Army and Navy nurse corps since 1940, through display of a service

poster which listed the names of 315 for the Army, and 35 for the Navy. Georgia has met her quota for the military and was reported as slightly over her quota—being 102 per cent—but the civilian needs are far from being met.

3. A Special Red Cross Committee of Georgia State Nurses' Association was appointed to comply with the request from the director of Nursing Service of A.R.C. Functions and duties of this committee will conform to the national recommendations.

4. Special Recommendations from the Registry Committee were Submitted as follow:

- (a) That all registries of the state give serious consideration to the problems arising from transient, inactive, or part time nurses being admitted to the Nurses' Professional Registry service as to qualifications and dues.
- (b) That due to the fact that many transient nurses remain such a short period of time, it is therefore recommended that registries accept these applications on a monthly basis and that the recognition from the district council be accepted in lieu of Georgia Registration. It is suggested that the monthly rate be higher than it would be on an annual basis.
(Attached to this report is a copy of the suggested routine for handling forms of recognition for nursing without license.)
- (c) That the registries take a definite step toward establishing hourly and group nursing.
- (d) That the registry committees work very closely with the procurement and assignment committees of the Councils in covering this vital program, now definitely associated with the War Manpower Commission through Nursing Division.
- (e) That the registry committees secure copies of *Priorities For Nurses* and hold conferences to study the program.

Your special attention is called to the message to every nurse. "You and your agency are urged to get in touch with the local or state nursing council for War Service, to help you to determine where you are needed. The definition of essential as it applies to nurses eligible for military service requires more than a person's decision. The health problems of the community and its personnel resources, the relative value of the employing agency itself, the preference of the individual nurse, all must be considered together and weighed against the needs of the Armed Forces."

The above recommendations were approved by the Private Duty Section and Georgia State Nurses' Association at the Annual Business Session held September 26, 27, 28, 1943.

(Continued on page 349)

WOMAN'S AUXILIARY

President—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.

President-Elect—Mrs. W. T. Randolph, Winder.

First Vice-President—Mrs. Ralph Fowler, Marietta.

Second Vice-President—Mrs. L. W. Williams, 135 East 45th St., Savannah.

Third Vice-President—Mrs. Richard Binion, Milledgeville.

Recording Secretary—Mrs. Chas. Usher, 6 East Liberty St., Savannah.

: OFFICERS 1943-44

Corresponding Secretary—Mrs. H. H. Askew, 1329 Springdale Road, Atlanta.

Treasurer—Mrs. Lucius N. Todd, Rural Delivery No. 2, Augusta.

Historian—Mrs. W. W. Puett, Norcross.

Parliamentarian—Mrs. Lee Howard, 625 East 44th St., Savannah.

Press and Publicity—Mrs. J. Harry Rogers, 1325 Peachtree St., N.E., Atlanta.

PROGRAM FOR 1943-1944

Mrs. Olin S. Cofer, of Atlanta, president of the Woman's Auxiliary to the Medical Association of Georgia, has compiled a most interesting booklet which contains the program for the year's work. Taking as its theme "Health For Defense," the Auxiliary has embarked upon a broad program of health education, not only for the present war period but for future generations. The program recently approved by the advisory committee from the Medical Association of Georgia, includes the following subjects: nutrition, tuberculosis, cancer, venereal diseases and guidance for children and youth.

Mrs. Cofer says, "Civilian defense in its broadest and highest sense includes the whole problem of the maintenance of the health of civilians, as well as the protection of their lives and property. For self-defense and for the welfare of mankind all over the world, we have been compelled to enter upon this terrific war, this great international struggle, the ultimate goal of which is the preservation of our ideals, our way of life. It should mean the enriching of life for all. For this purpose we must not only put forth every ounce of strength, but we must increase our strength to the utmost.

"Perfect health for an individual is life's greatest gift. For a state or a nation, a high level of health is its most valuable asset. When this war is over and the great rehabilitation program begins is the time our Auxiliary will be challenged to put forth every effort in helping the medical profession to educate the public in the essentials of good health, both physical and mental. The contribution of health toward victory in modern warfare cannot be exaggerated for good health is the human stuff of which victory is made. 'To have and to keep health are the most potent factors in winning victory.' (From Dieuaide's Health in Wartime).

"Let us keep in mind then both the war and the peace and remember that what we do for health in wartime will result in lasting good and permanent benefits after the war is over.

"According to the resolution adopted at the recent state convention the chairman of the health education, public relations and visual education committees met with the president and outlined the program for health education to be carried out this year.

NUTRITION

"Good nutrition is the foundation of health. It is the one factor that will win or lose this war. There is a long way to go before we Georgians reach our optimum nutritional state. A general plan of study for the needs of each county must be made. A program that fits one community might be useless in another. Know the needs of your community.

"At a recent meeting of the National Council on Foods and Nutrition, a resolution was passed which read 'Resolved, that schools of medicine be required to give greater thought to the teaching of nutrition.' It is a challenge to our organization to co-operate in every possible way, not only in this movement, but to educate our own members to the relative values of food on the human body. We, ourselves, must be informed in order to inform others.

"The people of the United States need have no worry about the food provided for the soldiers and sailors overseas. It is ample in quantity and adequate in quality. We do need to worry, however, about the people behind the sailors and soldiers and those who engage in the many activities of national defense, who cannot work efficiently and give their best efforts to support our armies in this world-wide war, unless they receive food which will insure good health, both physical and mental.

TUBERCULOSIS

"As long as the war continues and for many years after we achieve peace, we shall be faced with the tuberculosis problem, we of the Medical Auxiliary know of this great menace to the health of our State but what are we doing to overcome it? To educate our people against its ravages, to seek every means and resource for its eradication, is a challenge to the vision and intelligence of our members.

"Hospital care is inadequate for the long waiting lists of patients. An educational campaign to stimulate interest in more hospital space for tubercular patients, is an urgent need.

"Because many such patients cannot gain entrance into tuberculosis hospitals, they remain at home, spreading the disease to others and often suffering for the lack of proper foods and necessary care.

"Education means much in these cases.

CANCER

"Cancer is America's enemy number one. It is a menace to both men and women—to young and old.

"Cancer control is a very real part of National defense. It can add much to the victory drive by protecting the health of those who must work to keep our soldiers properly equipped for the field of battle. These workers in industry are made up of the older men and women to whom cancer is an ever-present possibility. By hammering home the facts about the control of cancer, many of their lives will be saved.

"Knowledge must be given to every family concerning danger signals, the need for early diagnosis and treatment, and the message of courage and hope which early treatment means.

VENEREAL DISEASES

"These dangerous infectious diseases—syphilis and gonorrhea—annually exact a costly toll from America in terms of broken homes, damaged health, sterility, insanity, and death.

"Fortunately, the public has begun to face the problem more sensibly and to discuss them with more frankness. This new approach and better understanding have brought an insistence that control measures be applied.

"You are urged to cooperate in this program in every possible way.

GUIDANCE FOR CHILDREN AND YOUTH

"What is the use of spending billions to *defend freedom*, if we fail the children who shall inherit that freedom?

"Our democracy is built on the strength of our families. Its greatest defense rests on that strength.

"We shape our tomorrows with the boys and girls of today. These young people, eager, ambitious, just beginning to think for themselves, have pliant minds. They are learning things. Let us make sure they are learning the right things. Provide a sex education program for adolescents in your community.

"County presidents and district managers assuming office should appoint chairmen, when possible, corresponding to the state, southern and national auxiliaries and send list of chairmen to the state president. Though auxiliaries with a small membership should not be discouraged because of impossibility of having all committees they should endeavor to promote the main objectives of auxiliary work. The full list of committees follows:

"Organization, program, public relations, war service, health education, visual education (health films), Hygeia, legislation, press and publicity, The Bulletin, Doctor's Day, Research in Romance of Medicine, historian, student loan fund, Jane Todd Crawford Memorial, archives, exhibits and scrap-book.

"May our year's work together be one of joyous achievement, secure in the knowledge that ours is a great service of love and goodwill, not only to our fellow man but to the greatest profession in the world."

NURSES' RESOLUTION

(Continued from page 347)

RESOLUTION

WHEREAS, the Georgia State Nurses' Association, Georgia League of Nursing Education, Georgia State Organization for Public Health Nursing, and Private Duty Section of Georgia State Nurses' Association, assembled in joint annual session at Atlanta, Georgia, on September 26, 27, 28, 1943, have declared their interest in the plan for nursing education now being developed in the University of Georgia, and whereas there is a great need for prepared nurse teachers for schools of nursing and community nursing service and for enrichment of the basic nursing program; therefore be it resolved:

That we express our appreciation to the University of Georgia for cooperation in sponsoring the program in basic and advanced nursing education, and further be it resolved:

That we request the University of Georgia to enter upon plans for permanent programs in basic nursing education, teacher preparation, and public health nursing.

Resolved: That a copy of these resolutions be spread upon the minutes of the meeting of the Association.

Be it further resolved:

That a copy of these resolutions be sent to Chancellor S. V. Sanford, of the University System of Georgia; President Harmon Caldwell of the University of Georgia; Dr. Edwin D. Pusey, Dean, School of Education, University of Georgia; Dr. George M. Sparks, Director, Atlanta Junior College and University System Center; also the Associated Press.

NOTE: This resolution was unanimously adopted, September 28, 1943.

(MRS.) ESTHER WATTS, *Secretary*,
Georgia State Nurses' Association.

FRIEDA GREFE, president, Georgia State Nurses' Association.

RUTH BABIN, president, Georgia League of Nursing Education.

VERA MINGLEDORFF, president, Georgia State Organization for Public Health Nursing.

MRS. MILDRED B. PRYSE, chairman, Private Duty Section, G.S.N.A.

NEWS ITEMS

The monthly staff meeting of Emory University Hospital, Emory University, was held on September 7. Dr. Ed F. Fincher reported an "Undiagnosed Case"; Dr. Lon Grove reported a case of "Carcinoma of the Gallbladder"; Dr. Roy R. Kracke gave a "Review of the Hospital Deaths."

The Bibb County Medical Society met on the roof of the Doctors Building, Macon, September 7. Capt. Frank L. Morton and Capt. Zeb McDaniel spoke on "Venereal Disease Control."

The staff of the Department of Medicine of Grady Hospital, Atlanta, met on September 12. Cases discussed were "Neurofibromatosis and Its Neurologic Complications"; "Myxedema"; "The Hamilton Manometer" and "Malnutrition."

Dr. Y. H. Yarbrough has been appointed superintendent of the Milledgeville State Hospital.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, September 16. Dr. Tully T. Blalock spoke on the "Treatment of Burns at Pearl Harbor." He was medical officer at the United States Naval Hospital at the time of the Japanese attack at Pearl Harbor December 7, 1941.

Titles of articles published in the September 16 issue of *The Bulletin of the Fulton County Medical Society* were: "President's Message" by Dr. George W. Fuller; "Industrial Health," Dr. L. M. Petrie, director of Industrial Hygiene Service, Georgia Department of Public Health.

The Medical College of the State of South Carolina, Charleston, offers refresher courses which will be given November 3-4. Dr. V. P. Sydenstricker, Augusta, will speak on "Deficiency Diseases"; Dr. Roy R. Kracke, Atlanta, "Diagnosis and Treatment of the Hemorrhagic Diseases."

The staff meeting of the Georgia Baptist Hospital, Atlanta, met in the Nurses' Dining Room September 21. Dr. W. E. Upchurch was in charge of the program.

The International Medical Assembly; Inter-State Post-graduate Medical Association of North America will meet at the Palmer House, Chicago, October 26-29. Dr. James E. Paullin, Atlanta, is a member of the Committee on Medical Research and Advancement.

Dr. Thomas D. Longino, Atlanta, celebrated his 97th birthday September 7. He graduated from the University of Georgia School of Medicine in 1870 and practiced medicine until 1922. He is a native of old Campbell County, now a part of Fulton County, practiced medicine in Palmetto for four years then moved to Atlanta. Numbers of his family are 90 years of age and older.

The Seventh District Medical Society met at the High School Auditorium, Calhoun, September 29. Titles of scientific papers on the program included: "Problems in the Treatment of Rheumatic Heart Conditions in Children" by Dr. Joseph Yampolsky, Atlanta; discussed by Dr. Inman Smith, Rome, and Dr. Ralph Fowler, Marietta. "Meckel's Diverticulum with Report of Cases," Dr. F. L. O'Connor, Rossville; discussed by Dr. Lester Harbin, Rome, and Dr. Trammell Starr, Dalton. "President's Address," Dr. W. A. Selman, Atlanta. "Modern Treatment of Hemorrhoids," Dr. Hulett H. Askew, Atlanta; discussed by Dr. F. P. Lindley, Powder Springs, and Dr. D. Lloyd Wood, Dalton. "Poliomyelitis," Dr. Chas. E. Irwin, Warm Springs; discussed by Dr. J. H. Mull, Rome, and Dr. Chas. F. Engelking, Dalton. "Sinusitis," Dr. J. R. Childs, Atlanta. The Wagner-Murray Bill now pending in Congress was discussed by Dr. W. A. Selman, Dr. Edgar D. Shanks and Mrs. Olin S. Cofer, all of Atlanta. Barbecue dinner was served at Lake Amakanata. Officers of the society are: Dr. W. D. Hall, Calhoun, president; Dr. William Harbin, Rome, president-elect; Dr. W. C. Mitchell,

Smyrna, secretary-treasurer. Personnel of the Committee on Arrangements were: Dr. Z. V. Johnston, Calhoun, chairman; Dr. R. D. Walter, Calhoun; and Dr. J. E. Billings, Calhoun.

The Woman's Auxiliary to the Seventh District Medical Society met at Calhoun September 29. Speakers and titles of addresses before the meeting of the Auxiliary were: Dr. Joseph Yampolsky, Atlanta, and Dr. Chas. E. Irwin, Warm Springs, "Infantile Paralysis"; Mrs. Olin S. Cofer, Atlanta, president of the Woman's Auxiliary to the Medical Association of Georgia, "The Program and Aims for the Coming Year."

The Bibb County Medical Society met at Ridley Hall, Macon, October 5. Dr. O. R. Thompson reported two cases of "Ruptured Uteri."

The staff of the Department of Medicine of Grady Hospital, Atlanta, met on October 3. Titles of reports of cases were: "Myocardial Infarction," "Results of Fever Treatment of Paresis" and "Staphylococcal Pneumonia."

The staff of Emory University Hospital, Emory University, met on October 4. Reports of cases included, "Acute Disseminative Lupus Erythematosus," by Dr. E. Van Buren; "Addison's Disease," Dr. F. M. Atkins; and "Six Selected Autopsied Cases," Dr. Roy R. Kracke.

OBITUARY

Dr. Thomas J. Taylor, Rentz; University of Georgia School of Medicine, Augusta, 1894; aged 74; died on August 26, 1943. He was born in Washington County. He had practiced medicine in Laurens County for 49 years. Was active in civic and religious affairs, member of the Masonic Lodge and Baptist Church. Surviving him are his widow, five daughters, Mrs. Theron Woodard, Mrs. H. C. Coleman, Mrs. B. M. Daniel and Miss Jean Taylor, all of Rentz; and Mrs. G. A. Autry, Dublin. Rev. C. E. Vines officiated at the funeral services conducted at the Rentz Baptist Church. Burial was in the churchyard.

Dr. Walter Branham Emery, Atlanta; member; Atlanta College of Physicians and Surgeons, Atlanta, 1899; aged 67; died September 8, 1943, at the home of his daughter, Mrs. John Cooper, San Francisco. He was born and reared in Atlanta. Graduated from Emory University, Oxford. After he graduated in medicine, he took post-graduate work at Johns Hopkins University School of Medicine, Baltimore. Dr. Emery was a member of the American Medical Association, past president of the Fulton County Medical Society, and a member of the North Avenue Presbyterian Church. Prior to his death he had lived with his daughter three years in San Francisco. Surviving him are three daughters, Mrs. John Cooper and Mrs. M. A. Nevin, both of San Francisco, and Mrs. P. T. Teague, Pittsburgh, Pa.; one son, Walter B. Emery, Jr., paratrooper with the U. S. Army. Funeral services were conducted in San Francisco. Burial was in Atlanta.

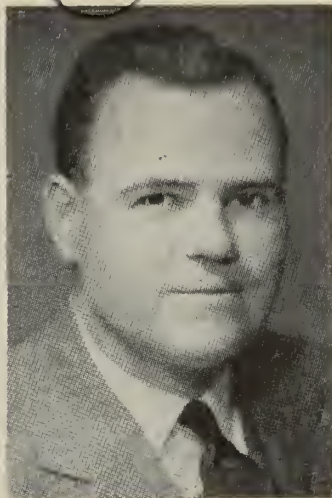
Dr. Emory S. Deaver, Monroe; member; Southern

College of Medicine and Surgery, Atlanta, 1911; aged 65; died August 25, 1943, at his home. He was a native of Blairsville, Union County. He received his education at Young Harris. Dr. Deaver practiced at Lexington and Union Point before he moved to Monroe. He was an outstanding citizen, charitable and had many friends. He was a member of the Walton County Medical Society, F. & A. M., and the First Baptist Church. Surviving him are his widow, one daughter Miss Geraldine, Monroe; one son, Clarence Deaver, Atlanta. Rev. J. L. Drake officiated at the funeral services held at the First Baptist Church. Burial was in Rest Haven Cemetery, Monroe.

Dr. Arthur Stout Boyette, Buena Vista; University of Nashville Medical Department, Nashville, Tenn., 1894; aged 73; died July 30, 1943. He was born and reared in Stewart County. He practiced medicine in Buena Vista and surrounding community for 48 years. Dr. Boyette was serving his second term as mayor of Buena Vista, had represented Marion County in the General Assembly of Georgia, chairman of the county Board of Commissioners, and member of the Buena Vista Baptist Church. The people who knew him best realize that they have lost a public spirited and useful citizen. Surviving him are his widow, four sons, A. S. Boyette, Jr., Buena Vista; Walton Boyette, Atlanta; Dr. L. S. Boyette, Ellaville; Sim Boyette, U. S. Army; two daughters, Mrs. W. H. Sappington, Hawkinsville; and Miss Alma Boyette, Washington, D. C. Rev. Gaither A. Briggs and Rev. A. B. Wall officiated at the funeral services conducted at the Buena Vista Baptist Church. Burial was in the Methodist Churchyard.

Dr. Thomas Lovemon Howard, Augusta; University of Georgia School of Medicine, Augusta, 1903; aged 64; died on July 23, 1943, in his automobile while on a trip to visit a sick patient. He was a member of the Masonic Lodge, and had served on the Richmond County Board of Education. Surviving him are his widow, four sons, Lt. Col. James William Howard, U. S. Army; First Lt. Cluese Howard, U. S. Army; Thomas Lee Howard and Jack Howard, both of Augusta; three daughters, Miss Elizabeth Howard and Mrs. J. Q. Adams, both of Augusta; and Mrs. M. B. Salley, North Augusta. Rev. Sam Zealy officiated at the funeral services conducted at Elliott's Chapel.

Dr. Holbert Asbury Rogers, Jeffersonville; Atlanta College of Physicians and Surgeons, Atlanta, 1909; aged 59; died August 8, 1943, at Alto. He was a native of Cumming and had practiced medicine at Norcross, Murrayville and Jeffersonville. He was a member of the Masonic Lodge. Dr. Rogers was held in high esteem by many friends. Surviving him are his widow, two sons, Robert B. Rogers, Perry, and Sergeant H. A. Rogers, Jr., Camp Forrest, Tenn. Rev. D. N. Nicholson officiated at the funeral services conducted at Hubert Vickers' Chapel. Interment was in Mount Vernon Cemetery in Quillians District.



DR. CHARLES F. MCKHANN
Assistant to the President of
PARKE, DAVIS & COMPANY
DETROIT

Dr. Charles F. McKhann, who has for several years been on the faculty of the University of Michigan, has resigned from that institution to accept a position as Assistant to the President of Parke, Davis and Company. Dr. McKhann will devote his time entirely to the scientific activities of the company. He will assume his new duties October 15.

At the University, Dr. McKhann has held the positions of Professor of Pediatrics and Communicable Diseases in the Medical School, and Professor of Maternal and Child Health in the School of Public Health. He has also acted as Consultant to the Secretary of War in the Control of Epidemic Diseases.

Dr. McKhann has had an interesting and exceptional background of experience. The summer of 1941, previous to coming to the University of Michigan, he acted as Consultant to the Board of Health, Territory of Hawaii. From 1936 to 1940 he held the position of Associate Professor of Pediatrics and Communicable Diseases at Harvard Medical School and Harvard School of Public Health. Before that he spent a year as Visiting Professor of Pediatrics and Communicable Diseases at Peiping Union Medical College, Peiping, China.

Since 1930 he has conducted and directed research on communicable diseases, immunology, renal diseases, nutritional diseases, and on certain phases of toxicology. He developed and introduced immune globulin and has contributed to the development of several other products.

Dr. McKhann is a member of the Michigan State Medical Society, American Medical Association, American Society for Clinical Investigation (Vice-President, 1943), American College of Physicians, American Academy of Pediatrics, Society for Pediatric Research (President, 1936) and American Public Health Association.

LECTURES SPONSORED BY E. R. SQUIBB AND SONS

At the invitation of the Pan American Sanitary Bureau, Dr. Olympio da Fonseca, Jr., medical director for Brazil of E. R. Squibb and Sons Inter-American Cor-

poration, has arrived in the United States for an extensive lecture tour. He is appearing before the faculties and students of medical schools throughout this country, discussing *Tropical Medicine* with special emphasis on malaria, African sleeping sickness, amebic dysentery and ring worm infection.

Dr. de Fonseca is a professor at the National School of Medicine of the University of Brazil and is connected with the Medical Centre of Ceara and the Department of Health of that state. He has attained world-wide renown as a mycologist, both as teacher and as director in this field at the Institute of Manguinhos. He is the author of the textbook, "Medical Parasitology."

WAGNER-MURRAY BILL RESOLUTION

At a meeting of the *Richmond County Medical Society* held on September 3, 1943, the various provisions of the Wagner-Murray Bill were freely discussed. From the standpoint of the medical profession, it will throttle scientific research and discourage the incentive to improve one's self in medicine and other branches of the profession. From the standpoint of the laity, it will destroy the patient-physician relationship which is so sacred, and deprive the sick and suffering of their right to select the physician of their choice.

The Bill makes no reference to the various cults which infest the land. There is no provision to regulate the charlatans and quacks. The public will be an easy prey of such frauds.

BE IT THEREFORE RESOLVED, that the Richmond County Medical Society goes on record as being unalterably opposed to the Bill in its entirety, and requests that our Senators and representatives do all in their power to prevent its passage.

IT IS FURTHER RESOLVED that a copy of this resolution be sent to the local press, to the two Senators and all Representatives from the State of Georgia, to every County Medical Society in Georgia, to the State Medical Association, to every State Medical Association in the United States, to the American Medical Association, to Senator R. F. Wagner, of New York, and to Senator James Murray of Montana.

BOOK REVIEWS

REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY

Issued under the direction and supervision of the Council on Pharmacy and Chemistry of the American Medical Association. Cloth. Price, \$1.00. Pp. 207. Chicago: American Medical Association, 1943.

Through the years the size of this volume has grown with the increased work of the Council on Pharmacy and Chemistry until the present edition has the same number of pages as the book published in 1903, which covered the Council's first four years of activity. Some of the functions of this group are well known, but a more thorough understanding of the Council's scope may be gained from the annual reprint. This volume epitomizes that phase of the Council's work which may be said to be collateral to the "acceptance" of drugs,—the informative consideration of current medical problems in the interest of rational therapeutics. It contains reports of studies by private investigators which were originally

published in The Journal under the sponsorship of the Council such as preliminary discussions of new developments in therapeutics and timely articles on the status of recognized agents as well as reports of omission or rejection of products from New and Nonofficial Remedies. It also offers a record of current decisions on matters of Council policy.

Several of the reports are of particular interest for various branches of medical science: the use of bulk ether in anesthesia, the absorption of surgical gut (catgut), the higher types of antipneumococcus rabbit serum, the surgical and medical treatment of animals with experimental hypertension and the status of racemic epinephrine solutions for oral administration. The reports in this small compact volume represent expert medical consensus and are proffered to aid in the consideration of the value of therapeutic agents.

New and Nonofficial Remedies, 1943, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1943. Cloth. Price, postpaid, \$1.50. Pp. 772. Chicago: American Medical Association, 1943.

The current volume of New and Nonofficial Remedies continues, with minor improvements, the convenient and informative system of classification adopted for the 1942 volume. The terminology of the official drugs has been revised to conform to the U.S.P. XII and the N.F. VII. One notes that the valuable bibliographic index now appears on white instead of "India Tint" paper a wartime necessity no doubt. This index appears before the general index which is now more properly placed at the end of the book. To one accustomed to the old format of New and Nonofficial Remedies the new arrangement appears at first somewhat awkward but with a little use the wisdom and convenience of the changes becomes more and more apparent.

Textual changes and revisions do not appear to be as numerous as in some previous editions. The chapter, Digitalis and Digitalis-like Principles and Preparations, has been extensively and somewhat radically revised to keep pace with the changing attitude toward this drug. It is understood that in this revision the Council had the aid of the foremost digitalis authorities, pharmacologists and clinicians alike. Other revisions have been made obviously to keep the book up to date with medical knowledge. To cite a specific revision indicating the increasing skepticism of the Council concerning a drug, it is interesting to contrast the following sentence in the 1942 general article on Chaulmoogra Derivatives, "The therapeutic properties of chaulmoogra oil appear to be due to these optically active unsaturated fatty acids of the chaulmoogric series." Which, in the 1943 edition, reads, "Any therapeutic properties chaulmoogra oil may possess would appear to be due to these optically active unsaturated fatty acids of the chaulmoogric series."

No such spectacular new additions as the appearance in a previous volume of the sulfonamides is to be noted. Among the more noteworthy of the new additions are Nikethamide, the central nervous system stimulant which was first introduced as Coramine; Diethylstilbestrol, the

synthetic estrogen; Trichinella Extract for the diagnosis of trichinosis; and Zephiran Chloride, a mixture of alkyl dimethyl benzyl ammonium chlorides, an interesting new anti-infective agent.

No one can examine the successive volumes of New and Nonofficial Remedies without increasing his profound respect for the faithful and unselfish work of the Council on Pharmacy and Chemistry in the cause of rational therapeutics. Each volume represents a progressive milestone on the road of medical science.

PENICILLIN PRODUCTION

A streamlined process of Penicillin production, resulting from two years' research in the Parke-Davis Laboratories, promises to substantially cut down the production time required, according to Homer C. Fritsch, General Manager of the Company.

"The present method of producing penicillin requires from 6½ to 14 days," he said in an interview recently. "We have advanced our methods to where we can produce in 2½ to 3 days without using cumbersome equipment."

This constitutes a significant forward step, since the bottle-neck in the Penicillin situation, to date, has been the fact that the drug has been available only in comparatively small amounts. Parke, Davis & Company is now regularly supplying penicillin to the government and has recently expanded its facilities for producing the new "miracle" drug.

THE PHYSICIAN'S BOOKSHELF

The Mind of the Injured Man, a book of 260 pages which include 28 illustrations, by Joseph L. Fetterman, M.D., Assistant Clinical Professor of Nervous Diseases, Western Reserve University, Cleveland, published by the Industrial Medicine Book Co., Chicago, portrays in understandable language the subject discussed; and should be of great value to every practitioner of medicine and surgery. Careful reading of this volume with its case histories should prevent the making of gross errors when judging "the mind of the injured man."

Synopsis of Tropical Medicine by Sir Philip Manson-Bahr, senior physician to the Hospital for Tropical Diseases and other hospitals in London, published by Williams & Wilkins Co., Baltimore, priced \$2.50, is another effort to bring students up-to-date regarding tropical diseases. This handy small volume of 224 pages will no doubt find favor among the medical profession of North America, particularly as the war progresses and as new diseases migrate to this country through the returning soldiers and sailors.

Fractures and Dislocations for Practitioners by Edwin O. Geckeler, M.D., Philadelphia, published by Williams & Wilkins Co., Baltimore, priced at \$4.50, is another laudable effort to condense into one readable volume the present-day knowledge dealing with these subjects. This book contains numerous illustrations which, with its reading matter, should prove helpful to all practitioners of surgery.

Injuries of the Skull, Brain and Spinal Cord, 616 pages of material collected from various authorities and edited

by Samuel Brock, M.D., New York University, published by Williams & Wilkins Co., Baltimore, priced at \$7, should interest both physicians and surgeons, since injuries of the skull, brain and spinal cord are common now and since most of such injuries should have prompt attention.

Human Neuroanatomy by Oliver S. Strong and Adolph Elwyn of Columbia University, a volume of 414 pages published by Williams & Wilkins, Baltimore, priced at \$6, represents in clear language and excellent illustrations the subjects studied. This book will be a valuable addition to any medical library.

Pain Mechanisms by W. K. Livingston, M.D., Lieutenant Commander, M.C., United States Navy, published by The Macmillan Co., priced at \$3.75, is another effort to interpret for students and practitioners the most distressing of all symptoms: pain. This volume of 252 pages is easily readable and should be a valuable asset to one's library.

PHYSICIANS AS ARTISTS

"From time immemorial, medicine and art have been closely associated. The same skill that makes the surgeon's fingers deft with scalpel and ligature is at work in the beautiful examples of sculpture and carving shown in this book. The eye that so quickly and accurately evaluates the gradations in color and texture between normal and pathologic tissue coordinates the hand that wields the painter's brush. The man who chooses medicine as his life's work is largely motivated by a love for his fellow man, else he would select a vocation offering greater monetary reward. From the beginning, he is trained to exercise his powers of observations, and in time develops imagination, sympathy, understanding, philosophy and reverence, all of which are the very essence of art. Moreover, he deals with that most exquisite form of divine art and beauty, the human body.

"An artist-physician has said: 'The tendency of most persons is to regard the artist with awe as a superman endowed with talents not vouchsafed to the ordinary mortal. Most doctors have a latent artistic sense which may be developed to a remarkable degree by constant practice. When opportunity affords, slip away to the park or country, sit down on a camp-stool and practice sketching from nature. At first the results may not be satisfying, but in course of time you will be gratified to notice a marked improvement. An ample sketching kit may be purchased for a small sum and any local artist will be glad to give you instruction.'

"At the least, every physician is able to develop a sensitiveness to and an appreciation for fine art. He can also cultivate a hobby, which, if no tone of the fine arts, is in the class of 'work by the side of work.' Dr. Charles A. Dana, who has always stressed the value of cultural medicine, has advised: 'Be a collector, for example, of stamps or automobiles, or old books, or neckties or pins; or find diversion in some collateral branch of science; the lore of birds, of fishing and shooting. Make a garden or cultivate shrubs and flowers. These kinds of activities will make your life happier and your professional character more attractive and effective.'—quoted from *Parergon*, published by Mead Johnson & Company, Evansville, Ind. Free copy available to physicians on request.

CONTINUOUS CAUDAL ANALGESIA IN OBSTETRICS

Eli Lilly and Company, Indianapolis, announces the release of a 16-mm. silent motion picture in color on the subject. "Continuous Caudal Analgesia in Obstetrics." The film is available to physicians for showing before medical societies and hospital staffs. It deals with the history, anatomy, and physiology of caudal analgesia and demonstrates the technic of use in obstetrics.

The film was made at the U. S. Marine Hospital, Staten Island, New York, by authorization of the Surgeon General, U. S. Public Health Service, and the demonstrations were carried out by the originators of the technic, Dr. Robert A. Hingson and Dr. Waldo B. Edwards.

PENICILLIN BIBLIOGRAPHY

Announced in the June issue of *Medical Journal Abstracts*, the very complete 93-page annotated bibliography, *Penicillin and Other Antibodies Produced by Microorganisms*, published by E. R. Squibb & Sons, has had widespread distribution, both to physicians in civilian practice as well as to those with our armed forces. It is distributed, as an editorial addendum states, "with the hope that in the interim all in medical practice who are interested in Penicillin may have an opportunity to post themselves on the preliminary investigation which preceded its general accessibility."

The bibliography is divided into three parts. The first portion, containing abstracts of 105 papers, deals with Penicillin, and since the arrangement is chronological the historically-minded reader can follow investigational progress from Fleming's announcement of his discovery in 1929 up to the clinical report of Mayo Clinic's Doctors Herrell, Cook and Thompson in the May 29, 1943, issue of the *J. A. M. A.*

The second part of the bibliography contains 124 papers dealing with Tyrothricin and Other Antibiotics from Bacteria. The third section includes 20 references to Antibiotics from Various Organisms and to reviews of all these subjects. The utility of the bibliography is measurably enhanced by a very detailed author and subject index. The publishers announce copies are available gratis to physicians; address Professional Service Department, E. R. Squibb & Sons, 745 Fifth Avenue, New York, 22, N. Y.

CLINICAL EVALUATION OF 'SECONAL SODIUM'

During the course of a year, Dietrich (Anesth. & Analg., 22:23, 1943) attempted to evaluate 'Seconal Sodium' (Sodium Propyl-methyl-carbinyl Allyl Barbiturate, Lilly) as a sedative in general pediatric practice. Over 3,700 doses of the drug were administered to more than 500 children and infants, both private and ward patients, without any untoward effects on pulse, temperature, blood pressure, or cerebrospinal fluid pressure. The drug proved to be an excellent general sedative possessed of some analgesic action, and in tetanus and in the performance of certain otherwise painful procedures where a general anesthetic was not desirable, such as pinch grafts, lumbar punctures, myringotomies, and incision and drainage of minor abscesses, it was of particular value.

When the age of the patient and freedom from gastric symptoms permit, 'Seconal Sodium' should be given by mouth. When administered by rectum, however, its action is only slightly retarded. The intact capsule may be inserted in the manner of a suppository by first pricking each end of the capsule with a pin; or, where fractional doses are desired, the powder may be suspended in tap water and given by rectum with a small syringe.

Dietrich found that for good sedation in children of average nutrition the following doses were appropriate: 1-3 months, $\frac{1}{4}$ - $\frac{1}{2}$ gr. by rectum; 3-6 months, $\frac{1}{2}$ - $\frac{3}{4}$ gr. by rectum; 6-36 months, $\frac{3}{4}$ -1 gr. by rectum; 3-8 years, $\frac{3}{4}$ gr. by mouth or $\frac{3}{4}$ -1 $\frac{1}{2}$ grs. by rectum; 8-15 years, $\frac{3}{4}$ -1 $\frac{1}{2}$ grs. by mouth or 1-1 $\frac{1}{2}$ grs. by rectum. For very deep sedation or for light analgesia some increase in dose may be necessary. Any dose in this schedule may be repeated safely once within an hour if the desired result is not obtained, or may be given with impunity every 3-4 hours if circumstances demand prolonged sedation.

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THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

VOL. XXXII

Atlanta, Georgia, November, 1943

Number 11

PRESENTATION OF THE PRESIDENT'S

GOLD KEY TO

JAMES A. REDFEARN, M.D.

C. K. SHARP, M.D.
Arlington

Dr. Redfearn, I am about to present to you a gold key given annually to the retiring president of the Medical Association of Georgia; this is a token signifying the esteem in which you are held by your fellows and a just reward for your faithfulness in performing the duties incident to your tenure of office as president, together with your long services in the councils of this Association.

Were I an artist capable of "gilding the lily" I might sing your praise on and on to a tiresome length, but a few words expressing some of your salient features as a man and as a physician, as a friend and counsellor, and as a citizen and public benefactor. As a man and physician, you have exemplified always man's finest traits. I was deeply impressed by the remarks made by your fellow-townsmen, Dr. A. H. Hilsman, when he said, on nominating you for president-elect in 1941, you were the soul of honor and a faithful and tireless worker. I am sure he knows whereof he speaks. Honorable and upright in your dealings with your fellowman, ethical in letter and spirit with your fellow physicians and patients, you have inspired hope and encouragement in those with whom you have come in contact who are incurable, without making rash promises and in a most tactful way. On the other hand, you have received the plaudits of those whom you steered through serious illnesses

to complete recovery.

Personally, you have been an inspiration to me as model and guide for physicians to emulate. You have taken advantage of "every shining hour" since you entered the "healing art" by faithful study, separating the obsolete from true scientific facts, all of which entitles you to the reputation you enjoy: a good physician.

As a personal friend and counsellor, you have my loftiest esteem. In numerous conferences over desperately sick patients you have been of inestimable aid to me, to the lasting good of the patient and, as a result, my patients have shown renewed confidence in me.

As a citizen and public benefactor, your work stands out pre-eminently. You have received the distinction of having your name engraved on the Hardman Loving Cup for your work on malarial prevention in your county. Your crusade in having your county care for and treat its tuberculosis patients will, I hope, result in its accomplishment, as should be done in all counties financially able to do so. Your work in local clinics among the poor, without financial reward, has marked you as a man interested in humanity and imbued you with the spirit of *The Great Physician*.

You are at present measuring up four-square in taking the place of younger physicians called to the colors, and I am sure doing your part efficiently and with spirit of the patriot. With all this, together with your duties as president, it is difficult to visualize how you accomplish so much, but being blessed with a splendid physique, the result of a clean, well ordered life, one can readily understand your accomplishments.

This little token I now present to you. You will keep it always as a reminder of the esteem and affectionate regard held by the members of this Association.

PRESENTATION OF THE HARDMAN
LOVING CUP TO
JAMES E. PAULLIN, M.D.

WILLIAM R. DANCY, M.D.
Savannah

It is my pleasure to be present tonight and function as Chairman of the Awards Committee of the Medical Association of Georgia.

Among the awards in the keeping of this committee, to be awarded to members of this Association, is one known as the Hardman Loving Cup. It was given by the late Dr. L. G. Hardman, Governor of this State, with the specific instructions to us to present this handsome trophy annually to a physician, member of the Medical Association of Georgia, who has done meritorious service in any sphere of the medical field which redounds to the credit of the Association. As the cup is presented each year, the name of the physician honored is engraved on it. Among those who have been presented with the cup to date are:

1933—Roy R. Kracke, M.D., Emory University.

1934—Jas. A. Redfearn, M.D., Albany.

1935—Chas. Glenville Giddings, M.D., Atlanta.

1937—J. L. Campbell, M.D., Atlanta.

1938—V. P. Sydenstricker, M.D., Augusta.

1940—Howard Hailey, M.D. and Hugh Hailey, M.D., Atlanta.

1942—T. F. Abercrombie, M.D., Atlanta.

It is with profound pride that I announce for the Awards Committee, their unanimous decision to present the Hardman Loving Cup this year to our highly esteemed member, Dr. James E. Paullin, of Atlanta.

Like many other great men of this State, Dr. Paullin was born in a small, South Georgia town. He came from that splendid type of people who were highly respected, deeply religious, seriously honest and who were willing and did make all necessary sacrifices to educate their children. Ambitious young Paullin availed himself of these opportunities. In 1900 he graduated at Mercer University and in 1905 at the Johns Hopkins Medical School. In his early career he was connected with the State Board of Health, and has constantly

been connected with Emory University Medical Department since his return to Georgia.

He has been honored by the profession by being elected to the presidency of the Fulton County Medical Society, the presidency of the Medical Association of Georgia, the presidency of the American Clinical and Climatological Society, the presidency of the American College of Physicians and now president-elect of the American Medical Association.

He has been honored by being made trustee of the National Foundation for Education, a member of the Board of Directors of the Finlay Institute of the Americas, a member of the Consultation Committee for the National Foundation for Infantile Paralysis, a member of the Medical Committee of the National Research Council, a member of the Directing Board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians, honorary consultant to the Bureau of Medicine and Surgery of the United States Navy, and Professor of Clinical Medicine at Emory University.

He has served for quite a number of years as a member of the House of Delegates of the American Medical Association and as chairman of the Council on Scientific Assembly. He also served for ten years as member of the Board of Regents of the American College of Physicians.

It has always seemed to your speaker that a man may be prominent in his profession and apparently a big fellow, but he is not really a great big man unless his heart is open, not only to his profession but to his family. I know I speak truthfully when I say, in spite of the many honors showered upon this distinguished Georgian, that the dearest thing to his heart — that which doubtless is his inspiration, is his family — graced by a lovely wife, and an equally charming daughter, and entertained by three dynamic youngsters that call him Grandpappy.

Dr. Paullin's accomplishments have been great; indeed they may be said to have been *appalling*. From the sublime to the ridiculous, may I step for a moment. It is reported that the eminent doctor is

Chairman of Committee on Awards, Ninety-Fourth Annual Session of the Medical Association of Georgia, Atlanta, May 12, 1943.

guilty of transgressing. In the words of the old Negro mammy, he is guilty of trigonometry. It seems that the old mammy, highly excited, called on the colored parson, saying, "Parson, if youse married three times, ain't that bigamy?"

"No siree," said the parson. "Sister, when youse married two times, dat's bigamy, and when youse married three times that is trigonometry." So Dr. Paullin is accused of trigonometry, of being wedded three times — wedded to "potlikker" which he recommends to his patients in preference to that Georgia beverage "corn likker," wedded to his profession of medicine, and wedded to one of the most cultured and charming ladies of Georgia — a state noted for its wonderful women.

In his early days, Dr. Paullin was a very vivacious youngster and bore the nickname of "Polly." The significance of this revealed itself in later years. It so naturally happens that in every organization of which he became a member, he "*pollinated*" each with his fine spirit and cleancut ability, resulting in every case in the production of the finest fruits and choicest flowers of medicine and of friendships.

Dr. Paullin, as the past president of the Medical Association of Georgia, as the past president of the American College of Physicians, as a president-elect of the American Medical Association, and as a perpetuator of trigonometry, the Awards Committee of the Medical Association of Georgia has designated me to present to you the award of the Hardman Loving Cup, knowing full well that you are worthy of the high honor bestowed. May it inspire you, sir, to more and greater deeds in the field of medicine.

SURGERY OF THE THYROID

H. M. McKEMIE, M.D.
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This paper will deal with what, in my opinion, are the two most important phases in dealing with diseases of the thyroid gland that are amenable to surgery; namely, preoperative treatment and postoperative care. In the beginning I should say that it is of utmost importance that a competent internist be associated with the surgeon in the care of surgical diseases of the thyroid, from the time the patient is first seen until the patient is dismissed after operation. They should cooperate closely in making thorough studies, and all other disturbances should be eliminated or corrected as far as possible. Of course, of primary importance is a correct diagnosis and the certainty that surgical intervention is indicated and offers the best chances for maximum improvement for the disease considered.

In the preoperative treatment of diseases of the thyroid gland amenable to surgery, one may loosely classify the patients into two groups: First, those who are nontoxic or mildly so; and the more seriously ill, or toxic group. All the patients should, of course, be hospitalized and should have a complete history and physical and all laboratory work, including the basal metabolic rate determination. In the first group of patients, those who are nontoxic or just mildly toxic, very little preoperative treatment is usually necessary. They need only the general preparation given to any other surgical patient; that is, a few days rest in bed with mild sedation and laxatives, and increased liquids a few days prior to operation. In the other group, the toxic diseases of the thyroid gland, a very definite schedule of preoperative treatment is indicated. This should begin at the time the patient is first seen by the internist and surgeon together. From this moment they should work in the closest of harmony at all times. The patient should be placed at absolute bed rest in the hospital in the quietest room available. Very little company

The heroism of an English medical officer, Lieutenant C. G. Rob, the first British paratroop officer to win the military cross, is described by the regular London, England, correspondent of *The Journal of the American Medical Association* in the September 11 issue.

The correspondent says that when the doctor dropped by parachute in Tunisia "he broke his leg. Nevertheless he carried on. When the blood transfusion supplies gave out he took a pint of his own blood for a patient. The citation states that he performed some one hundred and forty operations after being dropped by parachute, in many cases under enemy bombing."

Read before the Medical Association of Georgia, Atlanta, May 12, 1943.

should be allowed in the patient's room, and then, only members of the immediate family for short lengths of time. Every effort should be made to gain the patient's confidence by kindness, patience, and tact. A complete hospital work-up, including basal metabolic rate determination, should be completed. After the patient is comfortable in bed, he or she should be given mild hypnotics to allay nervousness and irritability and to, as nearly as possible, have absolute rest mentally and physically. The diet should be very liberal, at least 4,000 calories and better 5,000 with a high carbohydrate content and rich in vitamins A, B, and D. The fluid intake should be at least 5 liters in the 24 hours and, if necessary, should be given by hypodermoclysis or intravenous infusion. Nembutal or sodium amytal should be given in quantities sufficient to prevent nervous irritability. After the patient is at rest, a general survey has been made as to the degree of toxicity present, determined by the general condition of the patient, as well as the basal metabolic rate, pulse changes, and nervousness, he or she is given Lugol's solution in 15 minim doses three times daily by mouth. It is very important to note that this drug should never be given until operation is not only planned, but definitely consented to by the patient when maximum improvement is noted. Extreme care should be taken to determine the cardiac status of every patient with thyroid disease. All patients with auricular fibrillation, flutter, congestive heart failure, or diminished cardiac reserve should be digitalized from the beginning, and the fluids limited if edema is present. In some cases of fibrillation or flutter, quinidine sulfate in 4 to 6 grain doses three times daily is indicated, and no patient with cardiac embarrassment should ever be operated upon until the cardiac reserve is restored as far as possible.

The time of operation should be determined by the surgeon and internist together. In determining the date for the operation, one should consider the age, the amount of toxicity, the weight lost, the cardiovascular system and the condition of the patient generally. Personally, I like to see the pulse below 90, the weight at least

stationary or gaining, the nervousness allayed, and all signs pointing to the fact that the patient is very much improved. There should be a lowering in the metabolic rate in addition to the above noted improvements. The condition of the gland is important. In the acutely toxic patient, the gland is very hard and dense, and more or less immovable. If sufficient time is allowed, the gland softens and becomes more freely movable and operation is easier. In general, the clinical experience and judgment of the surgeon along with the internist during their daily observations on the individual patient are the most important factors in determining when the patient is really safe for operation. One should not wait too long for operation but should seek to intervene surgically when maximum improvement from the above treatment, including Lugol's solution, has been attained. If delayed too long, there is sometimes an increase in the toxic symptoms that is not decreased by a continuation of Lugol's solution. In my work I have usually been very frank with my patients, except in isolated instances, and I have found it better this way. After gaining the proper confidence of the patient, I usually tell them the day before or earlier and we discuss it together from time to time.

When in one's opinion maximum improvement has been noted, and the time of operation scheduled, the patient is prepared for operation. The day before operation they are given hypnotic drugs in sufficient doses to insure a good night's sleep. In the morning all food is omitted. They are given 3 grains of sodium amytal by mouth two hours before operation, $\frac{1}{4}$ grain of morphine and $\frac{1}{150}$ grain of atropine one hour before operation by hypodermic.

As to the operation itself, I have very few remarks. Needless to say, this is a very technical procedure and should be only attempted by those with proper training and experience in this type of work. The choice of an anesthetic should be the one with which the surgeon operates best. Personally, I prefer local infiltration anesthesia using 1 per cent novocaine solution. The

most important thing technically is cleanliness of the operative field at all times, and absolute hemostasis, and one should always confine the resection of the gland to the confines of the capsule, and if so done there will seldom, if ever, be any injury to the adjacent nerves or parathyroid bodies. The next most important thing technically is to remove enough gland to insure maximum improvement. I rarely leave more than a thin shell of gland attached to the posterior capsule. One can rarely remove too much tissue, and if so, a grain or two of thyroid extract daily will control any deficiency symptoms noted later. However, if too much tissue is left it is not only necessary for the patient to undergo secondary operations, but it is embarrassing to the surgeon.

Immediately after operation the patient is given morphine in sufficient doses to control all pain and restlessness, even before leaving the operating room. The patient should be placed in bed in a half sitting position and attended by a competent nurse, well trained in the postoperative care of a patient with thyroid surgery. They should be given 1,000 cc. of 10 per cent glucose intravenously immediately, and later 1,000 cc. of 3 per cent glucose subcutaneously. Five cc. of Lugol's solution in tap water should be given by rectum as a retention enema. As early as possible they are given a liquid diet and given 15 minim doses of Lugol's solution three times daily by mouth. Morphine sulfate should be given in adequate doses to insure rest mentally and physically. No company should be allowed in the room. As rapidly as possible the patients are placed on the same schedule of therapy that they had before operation. The diet is increased up to 4,000 or 5,000 calories, Lugol's solution is continued, and if there was a diminished cardiac reserve before operation and the patient was digitalized, they are given digitalis postoperatively in maintenance doses. The wound is treated as any other surgical wound. As improvement is noted the Lugol's solution is decreased in amount and they are allowed out of bed as soon as possible to regain their strength.

Among the postoperative complications, the one most dreaded is the development of toxic crises. If this should be eminent or develop, morphine should be given immediately in doses large enough to insure rest from pain and nervous irritability. The patient should be given 20 per cent dextrose intravenously, placed under an oxygen tent, a sponge bath should be given for moderately elevated temperature and in severe cases, covered with ice packs to reduce the very high elevated temperature. Whole blood transfusions or plasma infusions might be most valuable if there is any evidence of collapse at this time. In these cases it is important to know that iodine therapy is adequate and if not, sodium iodide should be given intravenously. Other complications include hemorrhage, shock, nerve injuries, collapse of a bronchus or the trachea, cardiac complications, infection, and tetany. Hemorrhage and shock should be treated as in any other surgical disease. Nerve injuries can better be prevented than treated. In a case where bronchial obstruction has occurred with collapse of the lung on that side, bronchoscopic removal of the mucus plug or obstructing substance offers the best chance for a quick recovery. In collapse of the trachea, tracheotomy is indicated immediately. If signs of tetany should develop after operation, the patient should be given calcium and parathormone intravenously.

In conclusion, I would like to add that these patients should not be watched for a period of days or weeks but for months and years following thyroid operations. In these cases where pathologic sections have indicated the tendency toward malignancy, radiation is indicated over the anterior neck, the sternum, the lateral and posterior cervical areas.

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DISCUSSION ON PAPER OF DR. H. M. McKEMIE

Dr. C. H. Watt (Thomasville): I just wanted to mention a technic in handling these thyroid cases which has been very helpful to me. This treatment is based somewhat on Dr. Crile's principle of not letting the patient know when he or she is going to be operated on. No matter how well prepared beforehand or how anxious they may be to get the operation over with, when the morning of operation comes they are more or less likely to show their reaction in the sudden increased pulse rate. For the past several years, since the introduction of intravenous anesthesia, we have made a practice two or three mornings before the operation to send an anesthesiologist to the patient's room with a 10 cc. syringe of normal saline or glucose solution. This is done before breakfast and the breakfast is given immediately after the injection. The morning of operation instead of taking glucose the anesthesiologist substitutes pentothal sodium and injects just enough to make the patient unconscious and maintain this state long enough to reach the operating room. The operation is done under ethylene gas and local anesthesia. In this way we have not noted any reaction. Other cases in which we have simply used a barbiturate preparation or basal anesthesia, we have noted pretty severe reaction.

Dr. Ralph H. Chaney (Augusta): In listening to this paper there were several factors mentioned which I would like to discuss. The primary one was the question of use of laxatives in the preoperative preparation of these patients. Toxic cases frequently develop severe diarrhea and because of this, I think laxatives should be used with a great deal of caution unless you bring on a systemic diarrhea, which, when they develop, are hard to control.

Another factor is in regard to the amount of fluid given these cases. Dr. McKemie said he used 4 liters of fluid daily. My own experience is that fluid to this amount often produces a marked hydration and cardiac embarrassment results therefrom. I believe that 3,000 cc. daily should represent a maximum fluid intake. Again I question the use of the large amounts of Lugol's solution which are advocated. Such amounts often upset the digestive tracts of these patients. We find that 5 to 7 minims of Lugol's solution accomplished the same result as the larger amounts and we do not have the danger of gastrointestinal upsets.

In a recent group of patients we have lessened the time in hospital by explaining their situation carefully to them and putting them on complete bed rest at home, only allowing them up to come to the office for check of their basal metabolism. We find that they reach the maximum effect from iodine in from 17 to 23 days and that we are able to then send them into the hospital for operation about the 24th or 25th day.

In regard to anesthesia, I started out 25 years ago believing absolutely in local anesthesia for all these cases, using it with preliminary morphine and atropine. Then I shifted to a basal avertin anesthetic with additional local. Recently I have thought that some patients have an easier operative procedure and easier postop-

erative course where cyclopropane is used as the anesthetic. It, however must be given by a skilled anesthesiologist. Cyclopropane also works very nicely when combined with avertin as the basal anesthetic. We have used intravenous anesthesia in a few instances, but my objection to intravenous anesthesia is that the duration of total anesthesia lasts far beyond the time necessary for the performance of the procedure and that the recovery interval is prolonged beyond the time involved with other methods. It also prevents allowing the patient to rouse sufficiently from the anesthetic to cough prior to being removed from the table, which I still think is good policy.

Dr. H. M. McKemie (closing): I would like to add that in the management of hyperthyroid patients, many other problems arise; for instance, the treatment of hyperthyroidism in a pregnant woman. In this type of patient we must decide whether to do a thyroidectomy, to give iodine therapy alone, or to use x-ray. In desperate cases, during the last 3 months of pregnancy, Lugolization and rapid cesarean operation are recommended.

Other emergency surgical conditions in a hyperthyroid patient will oftentimes offer difficulties. An emergency appendectomy is sometimes necessary in a hyperthyroid patient. In these cases it is necessary to give iodine intravenously as a method of rapid preparation for surgery.

It is even possible to operate on a patient for some emergency surgery in whom hyperthyroidism has not been discovered. It is wise for us to keep this in mind as sometimes we might recognize thyrotoxicosis postoperatively in some other surgical condition and the only manner in which our patient might be saved would be to give iodine in large doses intravenously.

Hyperthyroidism associated with many other medical conditions offers sometimes very great difficulties; diabetes mellitus particularly not infrequently occurs in a hyperthyroid patient, and when so, offers added difficulties in the management of both diseases.

I would like to report one case, that of a white female 30 years of age, a school teacher by profession.

She was admitted to our hospital with a diagnosis of Graves' disease. This was confirmed after clinical survey. Laboratory work was essentially negative, except a basal rate of plus 70. She presented a typical picture of this disease. She was watched carefully for a period of 48 hours, then she was given, in addition to her diet of 4,500 calories daily, four liters of fluid daily, sedation, and 15 minims of Lugol's solution three times a day.

At the end of the first week she was improved but it could be seen that she would be more difficult than many other patients might have been. The same treatment was followed and after one month we thought that she was ready for surgery. In spite of a basal rate still plus 30, generally she was much better. She had gained weight, her pulse was below 90, her nervousness was much improved. There was no evidence of cardiac damage. In spite of a basal rate that still seemed high, under local infiltration anesthesia with 1 per cent novocain she was operated on. The operation was carried out with the least amount of difficulty possible. She was very cooperative.

At operation only a very thin shell of thyroid tissue

was left on either side. The capsule was preserved and sutured over the tissue left. Back to her room in good condition she was given glucose intravenously, Lugol's solution by rectum, and morphine for rest. At the end of 24 hours she had a sharp rising pulse and temperature, and she was extremely nervous, indicating that she might be approaching toxic crisis. She was given morphine in large doses, concentrated glucose intravenously, sponge bath in tepid water and ice bags to head and body. The next morning she showed marked improvement and from that day on her convalescence was all that could be wanted. She was dismissed from the hospital on the 10th postoperative day.

Two years since operation, she has gained 12 pounds of weight, her pulse is below 90 and with the exception of a mild nervousness at times, she is in excellent health. She was a typical patient with Graves' disease in every way, diagnosed early before any permanent damage had occurred in the cardiovascular system. She was properly prepared before surgery was attempted. It is thought that adequate removal of tissue was accomplished at operation, and now, after two years, we think that maximum improvement has been noted. Recently, her basal rate was plus 6.

SOME PROBLEMS THAT SHOULD BE CONSIDERED BY YOU

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We have lived for the past ten years in a state of national emergency, with its unrest among all civilized peoples of the earth climaxed by our entry into the war. You have seen the arm of our national government through its various agencies reach out into nearly every field of activity. These are too numerous to mention. Where it will end nobody knows.

There has never been a more urgent need for unity in our profession and all of our citizenship than at the present time. We must all work individually and collectively to render our best services as professional men and patriotic citizens.

The rapid changes that are taking place require and demand close scrutiny and wise judgment on our part. We must put forth some effort, not passive but active, to preserve our standard of ethics and relationships towards each other and towards our clientele. We must seek to prevent the establishment of socialized medicine in our State and nation. Even in a democracy, if

we are to survive a right to free speech, freedom of the press and peaceful assembly, which is paramount in our profession, we must be constantly on the alert.

Were it not for these democratic principles no paper would be presented today with a right given all of you to discuss it. We would have no national state or local organization. It is essential that individualism be preserved — individual ambition, study, research and specialization should not be curtailed but encouraged. Can you expect this of the individual if he is regimented into socialized medicine? The very day that the government or any organization contributes towards educating an individual in the medical profession other than providing facilities for training, socialized medicine will have cast an anchor. If an individual or group is financed you may expect his or their activities to be directed in the field of medicine, even to a fixation of the remuneration.

The recent bill passed by the General Assembly of Georgia giving scholarships to the medical department of the University of Georgia has a proviso that the recipient, upon the completion of his studies, must return and practice in a designated locality. The intent of this bill is commendable. The proviso appears to be a step towards socialized medicine.

Except for the war is there a great deficiency of doctors in the country or is there simply an uneven distribution? Who is to blame? Is it our profession or some of the communities that we serve? Is the public educated or able to pay the doctor in keeping with the time devoted to the study of medicine? Does the Scripture answer the question, "A prophet is not without honor save in his own country"?

Many people from the various communities go to the cities for treatment, or from city to city, and leave, many times, the crumbs for the local man or men to gather and yet complain how badly their community needs a doctor. Often times the local man or men are well qualified for these individuals' care and in most instances are at least capable of giving proper advice. Doctors throughout this country have contributed their time and energy ad-

ministering to the indigent sick, without hope of reward except for the consciousness of having done their duty.

The rural field of medicine is not as alluring to the young doctor with its handicaps, as the city field with hospital facilities. It is the general practitioner of medicine that has been and is the pioneer in medicine. Upon his shoulders rest the responsibility to a large extent for the general welfare of this great State. He knows the family characteristics, idiosyncrasies, etc. It is his judgment and decision that refers many patients to some specialist for the patients' best interest. And in some instances these patients are lost to the general practitioner because either expressed or implied discredit is given the average country doctor. Many times no information or recognition is given the doctor as to his referred patient.

It would be "to the mutual advantage of all were this more seriously considered." Let us hold professional ethics as sacred as some of our professional secrets. "Let us do unto each other as we would have them do unto us." Let us hold aloft our profession in this time of stress, above political dictators and those that would commercialize or socialize medicine. Let us be on the alert and condemn any transgressors that would disrupt our profession or upset the fundamentals as stated in Hippocrates' oath. Let not egotism or the desire to earn deter you from the path of honor and respect for your colleagues. If your training and opportunities have been greater than some of your colleagues, do not allow this to lower the standards of our profession by discrediting the less fortunate. Let us preserve the virtues of our profession and be constructive and forever worthy of these high ideals.

Our druggist friends are oftentimes consulted by laymen for various complaints. And remedies are suggested by our druggist with good intent, little realizing they may be harmful to the individual seeking relief. We have made progress in discouraging the use of patent medicine and self-medication. We have the means and should continue this program through our civic organization, Department of Health and by

personal contact. We should increase our activities in view of the fact that radio is being used to advertise various remedies, vitamins, etc.

I wish to commend our State Department of Health for the great work it is doing. I would like to take issue with this department in some of its policies. The giving of stipends, the purchasing of x-ray equipment, and the emphasis placed on a special health course required by the department. This in a sense discredits our medical colleges and the undergraduates. It conflicts further, for we have a state license to practice medicine, and a state department failing to recognize the qualifications conferred by such license.

The giving of stipends to the physician or nurse desiring to take special health courses with a limitation as to age is not democratic. There may be some justification due to life's expectancy, anticipated years of usefulness, etc. This does not justify some in our profession being denied this opportunity.

The giving of stipends should be made available to all of the profession in view of the fact that taxes provide the funds. I seriously question the advisability or need for any of these awards being made to the profession unless like funds are available for other professions and pursuits of endeavor. The department is open to criticism by such acts and it may react unfavorably in the future, however good may be the intent.

We all should realize that legislative bodies are composed largely of laymen; their views must be considered for they represent all of our citizenship. And many of them are not well versed in public health activities and may get the wrong impression of the policy of our Department of Health and the medical profession.

In every class A medical college the graduate has sufficient knowledge of preventive medicine to make good healthy men. The Federal Government recognizes and accepts such men for the United States Public Health Service, the Army and the Navy.

Our State licenses these graduates to

practice medicine in Georgia, yet one of our State Departments has seen fit to discredit such men by requiring additional training. The fallacy of such a policy is plain in view of the fact that in a number of counties throughout Georgia, local doctors are holding V. D. and prenatal clinics when oftentimes the health commissioner is not even present. An honorarium is paid these men for their services by the Department of Health. Is this for the purpose of getting their cooperation, or is it a step toward socialized medicine? These men are considered competent in this work by the State Department of Health. Why aren't they in other fields of Public Health work? In this policy I cannot concur with the department.

We have in Georgia 34 county health units, 18 district health units and 55 counties served by county health nurses. There are many counties with none of these health benefits. It is true counties are required to participate in financing the county health benefits. Some counties likely desire these benefits but are not financially able to meet the requirements. We should make some effort to provide assistance for such counties.

Millions of dollars have been contributed by our Federal Government and hundreds of thousands by our State Government to the State Department of Health, and I believe all Georgians should receive these benefits, for taxes provide the funds. Those counties that are without county health units are required to contribute their share of taxes to the State and Federal Governments. They should receive due recognition and consideration. The Department of Health has seen fit to purchase a number of x-ray outfits and place them in counties where there are health units. I assume they are used for diagnostic procedure. One was placed in my county; later I understand it was moved to Columbus, Georgia.

Is our Health Department going to require that a health commissioner be an x-ray specialist and give training in this field? Is this the accepted knowledge of preventive medicine?

The Healthmobile continues to go into counties and take x-ray pictures and hold

tuberculosis clinics in some of those counties with x-ray equipment. Then why the need for purchasing thirty-odd x-ray outfits for county health departments? Isn't it true that in many counties we have trained and experienced men available for this work? Doesn't it take a properly trained individual to take, develop and interpret these x-ray films?

What will be the next step? Will it be one of our other specialties: surgery, eye, ear, nose and throat or most likely obstetrics? Isn't this a step to socialized medicine and encroachment on one of our recognized specialties? Now that pertussis vaccine is available, a request has been made in my county to allow the health office to administer it. There should be some line of demarcation as to policy.

In this time of stress, unless our profession becomes more active, more interested in protecting our profession and its various specialties, we will awake to the fact it is too late. We must not discredit the inroads being made on our profession and the trend towards socialized medicine.

Let us seek to preserve medical ethics. May we hold sacred individualism in medicine and its specialties. Let us fight every move made to regiment us as a group. Some politicians and certain selfish groups would regiment us as a group of professional men with our remuneration fixed and our activities limited. We should reflect and realize we need to preserve our profession for this and future generations in our democratic way of life, for our State and nation. God help us to be true to ourselves and true to each other so that posterity may forever respect our profession and its noble art.

SULFATHIAZOLE USED FOR PYURIA

Good results from the use of sulfathiazole in the treatment of pyuria (pus in the urine) in 3 newborn boys are reported by Alfred Florman, M.D., and Murray H. Bass, M.D., New York, in *The Journal of the American Medical Association* for July 3.

In all cases bacteria were present in the urine. In 2 of the 3 jaundice was present and in 1 infant there was infection of the blood stream. These patients were treated with sulfathiazole and recovered in about two weeks in place of the five to six weeks needed for recovery before the use of sulfathiazole. The authors also stress that the physiologic changes taking place in the early infancy period are likely to lead to the urinary infections at this early age.

THE PROBLEM OF THE GALLBLADDER

Factors in Surgical Results

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The logical approach to the gallbladder problem would seem to be through a study of the results of treatment, the reasons for failure, and means of improving the results. The ducts, being commonly involved with the gallbladder in the disease process, must be included in any consideration of the subject.

Unfortunately, we have little means of gauging the results of medical management of gallbladder disease. Reports in the literature are scarce. Up to a certain point, medical treatment is successful in maintaining the function of the gallbladder and keeping these patients in comparative comfort, though from the very nature of the disease it would be difficult to judge with certainty when a cure is established. Obviously, those cases in which the medical patient sooner or later comes to surgery must be counted as failures.

From investigations of the end results of surgical treatment, aside from mortality, we find that approximately 8 per cent of patients are completely relieved of their symptoms and perhaps 10 per cent partially relieved, the remaining 5 per cent being unimproved or made worse. Postoperative follow up studies with respect to the pathologic changes found at operation have shown that patients who had cholecystectomy for chronic cholecystitis with stones obtained better results than those without stones; complaints of recurrent pain, gas and indigestion were more common in the latter group. Goldman and Bell found that 93.3 per cent of patients with stones were cured or improved by operation, whereas only 61.1 per cent of those with chronic noncalculous cholecystitis could be placed in this category. Street reviewed 178 cases postoperatively, finding that 15 per cent of those with gallstones and 16 per cent with

duct stones had residual digestive symptoms, as compared to 38 per cent of patients without stones. Parsons reports cure in 83 per cent and improvement in 6 per cent of patients with stones in the gallbladder or ducts, or both, and cure in 51 per cent and improvement in 37 per cent in those without stones. We have observed that the greatest measure of relief is obtained following removal of the strawberry gallbladder with stones, and next in order, following cholecystectomy for severe cholecystitis without stones and strawberry gallbladder without stones. From these and similar reports by other surgeons, it appears that the poor symptomatic results of operation may be attributed, in part, to an *improper selection of cases*.

In our experience, the most reliable guide to the selection of cases for surgery is found in the *history*. Patients with gallbladder disease may be classified into three types: (1) Those who have colic but no digestive symptoms; (2) those who have digestive symptoms but no colic; and (3) those who have both colic and digestive symptoms. We consider recurrent colic a definite indication for operation. Likewise, digestive disturbances, such as gas, bloating and qualitative food dyspepsia, which persist despite medical treatment are ample reason for surgical intervention. The demand is urgent when nausea and vomiting, jaundice, and chills and fever are part of the syndrome, pointing to infection and obstruction of the ducts. As a rule, these digestive and obstructive symptoms will be accompanied by an abnormal concentration of the bile obtained through duodenal drainage; also, the roentgenogram will reveal stones or a poorly functioning gallbladder. As is well known, however, the roentgenogram is not always a dependable means of determining the true pathologic condition. For this reason, we have no hesitancy in advising operation whether the roentgenogram shows stones or not, or poor function or good function, provided the symptoms of gallbladder disease are clear cut, severe and persistent. One point, however, should be emphasized: the demonstration of poor function without sufficiently

severe symptoms does not justify surgery. The majority of disappointing end results have been observed in those cases wherein there were cholecystographic indications for operation but few symptomatic indications.

We thoroughly agree with those surgeons who believe that cholecystectomy should be performed for stones alone. There has been some debate as to the advisability of surgery for "silent stones." One may question whether there is such a thing. At any rate, Whitaker was correct in his assertion that the quiet stone of today may be a volcano tomorrow.

We feel, also, that if the gallbladder is found to be involved with other organs in the disease process, operation is to be seriously considered. The gallbladder does not tend toward spontaneous recovery and, whatever the primary site of infection, so long as this organ remains, it maintains the infection for the whole. Such a practice, however, is not to be followed indiscriminately, as removal of the gallbladder is not a cure-all for extrinsic disease, such as appendicitis or peptic ulcer. Further, one should be sure that the symptoms are not due to nervous stimuli, to gastro-intestinal allergy, or to a heart lesion. To sacrifice the gallbladder without a thorough investigation of every other possibility as a causative agent is inexcusable.

There can be no question as to the demand for medical treatment if the patient's symptoms are not decisive, especially if colic is atypical or lacking, and the roentgenogram shows no stones and normal function. When the function of the gallbladder is lost slowly through disease, the liver and ducts have an opportunity to accommodate themselves gradually to altered conditions, whereas the sudden loss of a functioning gallbladder throws upon these structures a burden for which they are unprepared. As a consequence, there is a pronounced physiologic disturbance throughout the biliary tract and even the entire system.

In looking at the problem from the surgical standpoint, two facts stand out: First, the necessity for early operation, and second, the importance of sound surgical man-

agement, with respect to the preoperative and postoperative care, the choice of the anesthetic, and the choice and method of execution of the surgical procedure.

Undoubtedly, the one factor which above all others determines the fate of patients is early operation. Cholecystitis is a progressive disease, and many surgical deaths are in reality medical deaths, because of delay on the part of physicians in referring patients for operation until the disease has advanced to a stage beyond human power to cure. Carter, Heyd and Hotz report a mortality of less than 3 per cent following cholecystectomy for gallbladder symptoms of less than two years' duration; thereafter the rate rises with continuation of the disease, reaching more than 11 per cent after ten years. Again, Heyd quotes a mortality of 3.61 per cent for cholecystectomy alone; of 11.34 per cent for cholecystectomy with choledochostomy, 33.3 per cent for cholecystostomy, and 37.5 per cent for cholecystostomy and choledochostomy. One might go on indefinitely quoting statistics, but these are representative and their inference is clear.

Further, not only the mortality but the incidence of cholecystitis increases with advancing years. According to Miller, approximately 50 per cent of patients have gallbladder disease at the age of 55, and approximately 90 per cent at 75. It is not difficult, therefore, to estimate the medical and surgical problem presented by this one condition alone, especially in elderly individuals.

The necessity for early operation is impressed upon us when we reflect that, if not arrested, the pathologic changes sooner or later involve not merely the gallbladder, but the ducts, the liver, the gastro-intestinal tract, the pancreas, kidneys, and perhaps other organs. In the gallbladder itself, the absorptive powers of the mucosa are destroyed, the bile becomes thick and dark, containing mucus and exfoliations of epithelium. The walls become edematous and inflamed and subsequently ulcerate, leading to empyema or perforation, or they undergo fibrous changes. Or, the process may take another form, the so-called "strawber-

ry gallbladder," in which the mucosa is studded with granules of cholesterol, and is hyperemic and usually hyperplastic. In the majority of cases, stones form sooner or later, either from stasis or from a combination of factors, including infection.

In the ducts, the process may be primary to or coincident with the gallbladder disease, though generally it is secondary to a severe cholecystitis. Stones may form in the ducts themselves, or may migrate from the gallbladder. Lahey is convinced that most common and hepatic duct stones are not produced in the gallbladder, but originate within the ducts, as a result of long standing infection. The frequent recurrence of stones after removal of the gallbladder is cited as proof of his contention. Unquestionably, however, a large number of duct stones migrate from the gallbladder, as evidenced by the frequent finding, when operation is carried out fairly early, of stones in the duct with little or no signs of cholangitis. In any event, the pathologic process ultimately produces in the ducts the same changes as are observed in the gallbladder; edema of the duct walls, flocculent bile, stones, and, in some cases, stricture.

The liver, though also sometimes the source of infection in the biliary tree, is often involved secondarily to the gallbladder lesion. If the causative agent is removed early, the diseased portion will regenerate. With continued onslaught, however,⁶ the entire organ may be invaded. Several years ago, Counseller and his associates demonstrated the varying degrees of damage to the liver architecture as a result of biliary tree infection and obstruction. They showed that prolonged obstruction of the common duct will produce sufficient back pressure and dilatation of the ducts to distort the liver and give the impression of hydrohepatosis, just as hydronephrosis follows blockage of the ureters. The longer the obstruction persists, the greater the injury to the liver and the less likelihood of repair.

Malignancy is observed in from 2 to 4 per cent of all biliary tree infections and should therefore be borne in mind as a po-

tential development in prolonged cholecystitis. This is especially true when stones are present, since stones are found almost universally in association with carcinoma of the gallbladder or ducts.

Acute cholecystitis presents one of the strongest arguments for early operation in gallbladder disease. In the vast majority of cases, the attack is preceded by a long standing chronic infection, and is instituted by obstruction of the cystic duct by a stone. The causative agent in the remainder is edema and strangulation of infectious or other origin.

The symptoms do not always reflect the true pathologic condition. For this reason, there may be some question as to the most opportune time for operation. It is generally agreed that, when the patient is seen soon after the beginning of the attack, operation may be delayed until measures have been taken to restore the depleted fluid balance in the tissues. Aside from this, the management must rest on the merits of the individual case. If the patient is in good condition, a period of preparation of 12 to 24 hours is sufficient. In many cases, however, a more extensive period of preparation is desirable; especially is this true of poor risk patients. Fortunately for these, the attack will usually subside under appropriate treatment, permitting operation at a more advantageous time. One can generally tell what course the acute process is going to take within 12 to 36 hours after the onset. If, during this period, the symptoms do not begin to subside, or if they become aggravated, operation is urgent. The clinical signs which we interpret as demanding surgery are (1) *sustained pain*, (2) *a tender mass in the right upper quadrant*, (3) *abdominal rigidity*, (4) *an elevation of temperature* and (5) *a rising leukocyte count*. Although the clinical picture is not always consistent with the pathologic process, a close watch of the patient and proper laboratory studies should enable one to determine when operation is necessary. Probably the most important indications for operation are sustained pain and a tender mass in the right upper quadrant.

Postponement of the operation until gangrene and perforation develop adds materially to the danger. The large majority of deaths from acute cholecystitis occur in this group of cases. Heuer reports a mortality of 2.1 per cent following cholecystectomy before perforation, in contrast to 12.5 per cent after perforation. In our experience, perforations have occurred in over 5 per cent of surgical gallbladders, with a mortality of 17.4 per cent. In non-perforated cases, our mortality has been less than 2 per cent. Since gangrene and perforation may occur with minimal or subsiding symptoms, more and more surgeons are advocating operation within the early hours of the attack, i.e., following a brief period of preparation, provided such a course is at all feasible.

One factor in the high mortality of acute cholecystitis is delay in hospitalization of these patients. As Barrow and Massie have pointed out, the death rate in acute cholecystitis increases in direct ratio to the interval between the onset of symptoms and the admission to the hospital. Not infrequently, perforation is impending or has already taken place when the patient is brought to the hospital. This is not always the fault of the physician, being due in some instances to delay on the part of the patient in seeking medical service. In any event, the patient who is placed in the hospital immediately can be better assured of having the care suited to his particular needs and can thus be promised a more favorable prognosis both as to morbidity and mortality. Such a practice would, no doubt, lead to many more operations during the primary stage of the acute attack.

Surgical Management.—In studying the causes of death from cholecystectomy, one finds that cardiac or respiratory complications predominate, with an occasional death from bile peritonitis or other complications. In advanced disease, failure of liver function is a conspicuous factor in the fatal termination. Since the majority of deaths are in cases of long-standing cholecystitis, the preoperative and postoperative treatment should be directed especially toward conservation of liver function. The pres-

ence of jaundice increases the need for intensive preparatory measures, in that one may anticipate the finding of duct stones in such cases.

The patient without ductal or hepatic disease may require but little preparation for surgery. Obese patients should be given a low caloric diet until the weight is substantially reduced. Others should be placed on a high carbohydrate diet for several days before operation, and fluids should be forced during the immediate preoperative period. A check on the patient's general condition, with particular reference to the existence of a respiratory infection, and phlebitis or other infection about the lower extremities may prevent serious postoperative developments.

In patients with evidence of associated liver and duct disease, liver function tests should precede surgical intervention. The prothrombin level in the blood should be determined, and any hemorrhagic tendency counteracted, both before and after operation, by transfusions and the administration of vitamin K. Formerly, we gave vitamin K by mouth, supplementing it with bile salts to promote its absorption. Now, however, we are giving a synthetic preparation intravenously, having found that the effect is more rapid by this method.

The icterus index affords an effective means of detecting and studying jaundice. Repeated tests will show whether the jaundice is deepening or subsiding. If possible, operation should be delayed so long as the index is rising or fluctuating, as the risk is less after the jaundice recedes to some extent.

In addition to these measures, kidney function tests should be carried out and a close check kept upon urine excretion. The administration of saline and glucose to restore and maintain the fluid balance in the tissues should be a routine measure. Sedatives and opiates should be given sparingly.

When the common duct has been opened, liberal quantities of decholin will be found advantageous in stimulating the flow and promoting better drainage after operation. We have used this drug freely in practically all such cases, giving it at first in-

travenously and then by mouth. Its use may be prolonged over a period of several days or, if necessary, several weeks.

The anesthetic should be selected primarily with the view of causing the smallest risk to life and the least discomfort to the patient. Some surgeons prefer spinal anesthesia, believing that it permits better relaxation. This is probably true in young individuals of robust build, in whom relaxation is difficult to obtain. For the average patient, however, we prefer cyclopropane. This drug is the least toxic of the inhalation anesthetics, and is particularly advantageous when an abundance of oxygen is desirable. If, as sometimes happens, relaxation is not perfect, muscle tension may be effectually released by a supplementary field block with novocain.

Recently, we have been using sodium pentothal intravenously in many of our bad risk cases, and have been much pleased with its effect. Relaxation is excellent, and there seems to be less disturbance of the respiratory mechanism. There is one minor objection to its use, especially when the anesthetic is prolonged: the patient does not wake up as promptly as following gas anesthesia. This untoward effect, however, is offset by the absence of nausea and vomiting and other postoperative disturbances incident to inhalation anesthetics.

One of the most important factors for the safety of the patient, and certainly the greatest aid to the surgeon is ample exposure of the operative field. In the majority of cases, an upper right rectus incision, its middle over the common duct, is suitable. It is our custom, however, to employ the supraumbilical transverse incision in most obese patients. The tissues of these individuals are usually friable, and this approach provides a safeguard against postoperative wound disruption and hernia.

Insofar as the type of operation is concerned, cholecystectomy is recognized as the procedure of choice, in that recovery is rapid, the mortality is low, and the necessity for further surgery obviated. The risk of a primary cholecystectomy, moreover, is far less than that of a secondary opera-

tion. Nevertheless, one's chief concern should be the safety of the patient. If the patient's condition is poor, or if the inflammatory process is so extensive that identification of the ducts and arteries is impossible, one should not hesitate to compromise with cholecystectomy. Drainage of the gallbladder may be a life-saving measure, especially following exploration of the ducts, and in many cases is alone sufficient to effect a cure. The fact that it may be performed under local anesthesia is an added advantage in those cases wherein it is most desirable.

If the inflammatory process is severe, the technic of cholecystectomy may present some difficulties. Dissection should be carried out in a dry field, and one should be sufficiently familiar with the minute structures to avoid their injury. The ducts and arteries are often abnormally situated, either naturally or because of swelling and edema of tissue or displacement by adhesions. Likewise, accessory ducts are commonly encountered. Incision or ligation of these anomalous structures may lead to grave consequences, and even to fatality.

It is our custom to isolate the cystic duct and determine its relation to the common and hepatic ducts, then ligate the cystic duct and artery and proceed with removal of the gallbladder. In chronic or elective cases, the dissection is begun at the cystic duct and continued from below upward, whereas if the condition is acute and the gallbladder greatly distended, dissection is begun at the fundus and carried downward. When jaundice is present, however, exploration is first carried out to determine the cause of the obstruction. If a malignancy of the ducts or pancreas is found, the gallbladder is conserved for anastomosis to the intestinal tract.

A major consideration in all operations for gallbladder disease is that of exploration of the ducts. The incidence of common duct stone is variously quoted, but on the whole is probably 17 or 18 per cent of cases of gallbladder and duct disease. Lahey strongly advocates exploration of the ducts; in his clinic they are opened in almost 50 per cent of such cases. He feels

that, in experienced hands, the procedure does not add to the mortality.

The present day criteria for choledochotomy may be enumerated as follows:

1. Palpation of a stone in the ducts.
2. Abnormal dilatation of the ducts. It should be borne in mind that stricture of the sphincter or obstruction by a pancreatic lesion will also give rise to dilatation.
3. A contracted gallbladder. There may or may not be stones in the gallbladder; we have all seen cases in which stones were found in the ducts, but none in the gallbladder.
4. Jaundice or a history of jaundice, associated with gallstone colic. Jaundice may be present without stones, however, and, conversely, stones may be present without jaundice.
5. Flocculent bile in the duct. When the existence of a stone seems doubtful, a small quantity of the contents of the common duct should be aspirated. If the bile is cloudy and flocculent, the duct is explored and drained. Not infrequently, a stone is found at the lower end of the duct.

Since the mortality of a second operation is exceedingly high, every possible means should be employed to clear the ducts at the initial procedure. The exploration should include the hepatic ducts as well as the common duct. The ampulla, also, should be carefully searched with scoops for any possible stones hidden in its recesses. Nor is the operation complete until the patency of the outlet has been demonstrated by the passage of a probe entirely through the distal end into the duodenum. Should an obstruction be found at this point, the sphincter may be dilated to almost normal size with the use of graduated sounds. As an additional safety factor, following exploration, the ducts should be irrigated with saline in order to remove any remaining debris. Finally, drainage is instituted by means of a T-tube. In the average cases, the tube is left in situ for 12 to 14 days, being clamped off at intervals after 6 or 7 days, to allow the bile to flow into the intestinal tract. In extensive disease, however, drainage may be continued indefinitely. The tube should not be removed until the inflammatory edema of the ducts

has subsided and the bile flows freely into the duodenum, as demonstrated by cholangiograms.

Whether to drain or not to drain the abdominal cavity following cholecystectomy is largely determined by individual experience. Extensive infection, of course, calls for drainage. Otherwise, the question is more or less contingent upon the finding of accessory bile ducts, and whether or not the operative field can be made perfectly dry. Formerly, we usually closed the abdomen tight and our results were excellent. Now, we are inserting simple Penrose drains in an increasing number of cases, as a precautionary measure. The drains are brought out through a stab wound, to be removed after four or five days.

Discussion

Surgeons may well congratulate themselves on the mortality of operation for cholecystectomy during the early stages of chronic cholecystitis. Even under the best of circumstances, the procedure is by no means a simple one, and a mortality of 1 or 2 per cent leaves little room for improvement. A closer study and more thoughtful selection of cases for surgery with a view to better symptomatic results, however, would be well worth while, since approximately 10 per cent of patients are only partially relieved of their symptoms, and 5 per cent are not benefited at all. These failures are due largely to operation without sufficient symptoms of gallbladder disease, or to errors in diagnosis. Their numbers might be reduced if more attention were given to the history and if greater precautions were taken to rule out extrinsic disease as a factor in the complaint.

A second and most serious problem of gallbladder disease arises from complications consequent upon operations too long delayed. Infection of the ducts, damage to the liver architecture, and severe inflammatory changes in the adjacent tissues not only further impair the patient's resistance, but necessitate more intensive preoperative and postoperative treatment, as well as more extensive operations, and multiply the difficulties of the technical procedure. The surgical indications for cholecystectomy are well established, and once they are

clear, the sooner operation is carried out, the more successful the outcome from the standpoint of both residual symptoms, and of morbidity and mortality.

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INDUSTRIAL HYGIENE

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The death last month of Dr. George Washington Crile, founder of the great Cleveland Clinic, brings back to our minds the great disaster which occurred in 1929 when the Cleveland Clinic was gutted by fire with the loss of 125 lives. This disaster was a spectacular illustration of an industrial health exposure, the control of which is typical of what we are doing in industrial hygiene today. The modern electric welding arc causes the nitrogen in the air to be oxidized to nitric vapors, NO , NO_2 , N_2O_4 . It was the inhalation of these same nitric vapors which caused death in most of the victims of the Cleveland disaster, although during the actual exposure to these vapors, the only symptoms were some irritation of the eyes and respiratory surfaces, and the severe lung symptoms and collapse, followed frequently by death, did not set in until four to eight hours later. In this type of poisoning, unless the history of exposure is recognized, the resulting illness and death may easily be misdiagnosed as ordinary pneumonia. But whenever an electric arc welder does his welding in enclosed spaces, as in the ballast tanks of ships or inside boilers, he is exposed to potentially dangerous concentrations of these vapors and of other dangerous metallic fumes, unless safe air is assured by the correct use of carefully designed ventilation equipment.

The illustration just given is only a typical

example of the hundreds of recognized occupational disease hazards which exist in our modern industrial plants. There is no complete listing of all occupational diseases. Someone asked little Johnny, "Have you heard the latest?" and receiving the prompt reply, "No, 'tain't out yet." The same applies to occupational diseases. The latest "ain't out yet." Day by day, duPont or Dow Chemical or someone else comes out with some new industrial chemical or some new process which adds new hazards to our already long schedule of occupational diseases. Without attempting to enumerate them all, we can classify most of them, however, under the following headings:

1. Infections
2. Dust diseases
3. Metal fume fevers and the metallic poisonings
4. Chemical poisoning, including gases, fumes, vapors, mists, smokes, etc.
5. Harmful rays and emanations, such as x-rays, radium, and other radioactive substances, and ultra-violet, and infra-red rays.
6. Harmful changes in temperature, pressure, and humidity
7. Occupational dermatoses or skin diseases
8. Allergy
9. Fatigue
10. Electric shock

A beginning awareness of these problems was evidenced when the Medical Association of Georgia organized an industrial relations committee in 1921. The name was changed to the Committee on Industrial Health in 1939. The Georgia Department of Public Health has long realized its obligations under the broad coverage of our health laws to assume leadership in matters pertaining to the life and health of the industrial workers. In 1941, we established our Industrial Hygiene Service in the Division of Preventable Diseases. Qualified medical, nursing, and chemical personnel were employed. Special laboratory facilities were provided and a reference library was started under a trained librarian. Field equipment has been provided by which samples of toxic substances in the industrial environment are collected for identification and evaluation. Recommendations for their control are then prepared and submitted to management. Through the industrial hygiene service all the facilities and resources of the State Health Department are made available to our State industries. Assistance from the Division of Industrial Hygiene of the National Institute of Health is also available and is frequently used.

The great general scarcity of highly specialized equipment such as we have, as well as a scarcity of personnel qualified to use it and interpret the findings, make it practically impossible for our Georgia industries to obtain similar industrial hygiene services elsewhere. Nevertheless, there are no fees charged, for our work is considered to be a public service in the interest

Read before the Southeastern States Social Hygiene Day Meeting in Atlanta, Georgia, February 3, 1943, by Dr. L. M. Petrie, Director Industrial Hygiene Service, Division of Preventable Diseases, Georgia Department of Public Health.

of the public health. For convenience we have prepared for free distribution the following one-page outline of services available to industry:

INDUSTRIAL HYGIENE SERVICES WHICH ARE AVAILABLE TO INDUSTRY

1. SURVEYS:

- (a) To estimate the cost of illness to both the employer and the employee.
- (b) To gain information as to absenteeism resulting from illness, whether it be of occupational or non-occupational origin.
- (c) To gain information relative to the medical, sanitary, safety and welfare facilities available to plant employees.
- (d) To evaluate the potential health hazards and the existing control or preventive measures in the plant.

2. QUANTITATIVE STUDIES. To evaluate the exposure of workers and to provide a basis for control measures. These include:

- (a) Studies of toxic dusts, fumes, vapors, gases, mists, or other air contaminants.
- (b) Illumination studies.
- (c) Humidity and temperature studies.
- (d) Studies of any other environmental conditions which may affect the health of workers.
- (e) Clinical laboratory studies of workers affected by hazards.

3. CONTROL MEASURES. Assistance in the elimination of specific hazards in plants where studies have indicated their existence:

- (a) Recommendations for corrective measures.
- (b) Reviewing plans and specifications for new installations.
- (c) Checking the effectiveness of corrective devices through quantitative field determinations after they have been put into operation.

4. RECORDS. Assistance in developing and maintaining physical examination and absenteeism records, and assistance in statistical analyses of such records.

5. CONSULTATION SERVICE. Medical, nursing, engineering, and chemical problems which relate to the health and productive ability of workers."

We work in close harmony with the industrial hygiene service of the United States Army, the United States Public Health Service, the Navy, and the Maritime Commission. But since a greater portion of war material is produced by private industry, the responsibility for industrial hygiene service to privately owned plants under war contract has been delegated to us. So many important problems associated with war plants are being brought to us, that our work for the duration is practically confined to plants having war contracts. We regret that certain industries in the State, which are not handling war materials, will have to wait, not only because the war industries require all our time at present but also because priorities make it impossible for a non-essential industry to secure protective equipment.

Our discussion, so far, has been stressing the

diseases and accidents which are indigenous to the occupations. And as long as industry was interested primarily only in those accidents and illnesses for which it was held accountable by compensation laws, industry did not concern itself particularly with illnesses of non-occupational origin. Hence, in the past, well-organized industrial services have hardly been found except in a few of the larger companies. Most of these have grown like Topsy through a rather haphazard method of trial and error. Most often the interest in health has resulted from accidents and injury compensation cases and the extent of the service has usually been a safety program and provision for surgical care of compensation cases. Efforts to prevent the illnesses of non-industrial origin had been limited even in these larger organizations and had been nearly nonexistent in the smaller. They had not realized that over ninety per cent of their lost time for illness is due to non-industrial causes and that progressive companies elsewhere have estimated savings as high as \$70 per employee per year for a preventive program for non-industrial illnesses.

Failure of industry to plan for these medical services has left the employee to shift for himself. Most of the workers' wages have been too low to meet the cost of first-rate medical care in addition to the everyday necessities of life. Even in the light of the above limitations, it is probable that the attention given to their employees by some of the larger concerns has been a considerable factor in their success. In this competitive world they have found that productive capacity per man is just as important as productive capacity per machine. It makes little difference in terms of lost production whether a man and his machine are idle because of an industrial accident or because of some non-industrial illness such as pneumonia, tuberculosis, heart disease, or syphilis. In either event, the production is lost, but statistics such as I quoted before show that non-occupational illnesses and accidents account for more than ten times as much illness absenteeism as do all occupational illnesses and accidents combined. Let's see what this means. It has been estimated that illness and accidents accounted for 400,000,000 man-days lost from work in American War industries in one year. Ten per cent of that is 40,000,000 man-days lost because of occupational accidents and diseases as compared with 90 per cent or 360,000,000 man-days lost because of non-occupational illnesses. If this can be reduced by 20 per cent to 50 per cent as has been estimated through application of present knowledge of preventive medicine, why not do it? We have developed an overall balanced industrial health program whose objective is to contribute our share to that reduction.

This model health program, which we are promoting, highlights the prevention of pre-

ventable illnesses, especially those known to be leading causes of death or morbidity among individual workers. Especially emphasized are:

1. Occupational diseases and accidents
2. Chest x-ray for tuberculosis
3. Blood test for syphilis
4. Immunization against smallpox, typhoid, and tetanus
5. Prevention of nutritional deficiencies

Arrangements are made with the local health department and members of the local medical profession for suitable follow-up, control measures and treatment. As pointed out by previous speakers, infectious selectees are rejected by military services. Many of these rejectees seek employment in industry, placing an additional load on industry to protect itself against spread of communicable disease.

Among the first places where we attempted to put this program into effect were our Georgia shipyards. Our program, in principle, received the enthusiastic endorsement of the regional representative of a large insurance company which was involved. At his suggestion, and to facilitate the machinery for putting the program into effect, the plan was written up and submitted to the Maritime Commission in Washington for consideration on a nationwide scale. This was found necessary to secure the backing needed to put the program into effect in the Georgia yards. An outgrowth of this has been the establishment of a health control section in the Labor Relations Division of the Maritime Commission, which has established minimum health standards for all the Maritime Yards. Machinery has been set up with the assistance of medical and engineering personnel loaned to the Maritime Commission by the United States Navy to assist in setting up these standards in the yards and to assure their maintenance. A model program is already underway in one Georgia Maritime Yard and similar programs are being developed in the other Maritime Yards in our State.

The success of any industrial health service depends first and foremost on adequate medical, nursing, engineering, and chemical personnel. The problems in all these fields are so diversified and intricate that we have yet to find any one person who knows all the answers. Through our pooled resources, however, our industries are able to develop more effective programs with the personnel which they have available.

The mechanisms through which the control of the many illness hazards is attempted include:

1. Adequate housing and equipment for medical and safety departments, strategically located within the plant.
2. Pre-placement physical examinations of all employees, and assignment of each to an occupation for which he is best fitted. Executives are included in this program.
3. Periodic examinations, including any special

medical and laboratory studies indicated as a result of exposure to specific hazards.

4. Provisions for adequate feeding through cafeterias, canteens, victory lunches, package lunches, food demonstrations, cooking schools for housewives in workers' families, nutrition committees, etc.
5. Surveys to determine sanitary and occupational hazards and engineering and medical control measures.
6. Nursing follow-up of sickness absenteeism. Production is stopped just as effectively if the worker stays home because of illness in his family.
7. Absenteeism records.
8. Rehabilitation service. Suitably trained cripples make reliable workers and become more stable employees than the so-called physically perfect group.
9. Health education, particularly through the personal touch. Also through talks, movies, posters, pamphlets, etc.

Summary

Not many years ago Industrial Hygiene was considered to be a branch of the fields of medicine, engineering, and chemistry dealing almost exclusively with diseases due to occupation. But we have shown that illnesses of non-occupational origin should be of as much or more concern to industry. Therefore modern industrial hygiene may be defined as that branch of the medical, nursing, engineering and chemical sciences which is concerned with the study of the effects of environmental conditions in industry upon the health of industrial workers, and with the application of the principles of preventive and curative medicine and engineering in industrial establishments.

We know enough to make every job safe, healthful, and more productive. The problem is to apply this knowledge. We must be health conservators as well as health repair men. Our major unsolved problems today are those of procurement; procurement of materials and equipment and procurement of trained personnel.

ADVICE TO ANGLERS ON THE REMOVAL OF FISH HOOKS

"By all odds the 'push through' method is the best one for the removal of a fish hook in which the barb has gone in beneath the skin," it is advised in *The Journal of the American Medical Association* for May 22. "Circumstances can conceivably arise in which it would require pushing the fish hook through a considerable distance by a curved route before the barb emerges from the skin. When this occurs, it would seem better to make a small incision down to the barb before pulling it out backward."

The foregoing is in answer to a question from a physician regarding a statement published in a fishing magazine wherein it was advised that one "take a pair of small nosed pliers, take a good hold on the hook yourself or have some one officiate for you, and yank. . . ."

THE PRESIDENT'S PAGE

EDUCATIONAL OPPORTUNITIES

It has been said that "opportunity knocks once at every door." I believe this is truer today than ever before, for opportunity is knocking daily. Young men and young women of America are begged through the press and over the radio to pursue some line of study leading to an occupation or a profession of their own choice, and in many cases without cost to themselves!

The time is not long past when a college education, except to the rich, meant years of struggling and saving. There are few professional men of my acquaintance who have not taught school, worked at night, stinted and saved, and then borrowed money to finish their education! Now the demand for educated personnel in America is so great that the Federal government is actually paying men and women to pursue scientific and professional courses, and asking in return only their services for the duration of a war that to lose would mean slavery for us all. For those of military age there is a choice of service, where one thinks he can serve his country best. For those on the home front there is no age limit. As long as *strength* and *will* last, opportunity will be found.

I want to especially appeal to every high school graduate in Georgia to consider well your plans for the future. Apply for some course offered you by your coun-



try at no expense to your parents or yourselves and prepare yourselves for your life work. Young women are needed by the nursing profession. Your country gives this training for the asking — and pays you besides. Mechanics, electricians, doctors, dentists and many more vocations and professions are available for the asking. It is your patriotic duty to ask!

Opportunity knocks. Will you open the door?

W. A. SELMAN, M.D.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

NOVEMBER, 1943

CANCER CONTROL IN THE PUBLIC SCHOOLS

Until recent years any attempt to teach cancer control in the public schools would have met with the most vigorous opposition, but cancer has become a public health problem and as such can be placed in the same category with many other subjects that are now being taught.

Cancer cannot be prevented in the sense that tuberculosis, typhoid fever, smallpox or diphtheria are controlled and prevented, for it is neither infectious nor contagious, nor is it caused by a virus. It is a biologic process; therefore, its control is strictly personal.

Owing to the enormous number of people who linger through months of intolerable suffering only to be relieved by death, cancer becomes a malady of paramount importance. We were startled when we compared the war casualties with those of cancer. A few days ago Hon. John J. McCloy, Assistant Secretary of War, announced that from Pearl Harbor to Sept. 1, 1943, the total U. S. War casualties—killed, wounded, missing and prisoners—amounted to 105,446. A little less than 20 per cent of these were killed. On the other hand, during the same period, 266,541 individuals in the U. S. are known to have died with cancer. It is estimated that nearly 600,000 people have some form of the disease at the present time; 14.4 per cent, or 864,000 of these, are within the ages included among the soldiers. This alone, if for no other reason, should urge us to see that every means possible will be used to bring to the attention of the public all that is known about cancer.

It is the duty of our state's organized agencies: the medical societies, the Women's Field Army of the American Society for the Control of Cancer and the State Department of Public Health to place such knowledge before the public as will induce every individual to take a personal interest in

his or her health and bodily well-being. We believe there is not a better way than to teach the school children that by regular health examinations the presence of pre-cancerous conditions and early cancer can be detected. The school children will most certainly carry home to their families the tidings that cancer can often be prevented and early cancer can be cured.

Biology is to a certain extent being taught in the schools. Cancer is a biologic condition and as such develops by a change in the cells of the body. What the cause of this change is has not yet been determined. We know and should teach the following facts: Cancer is not infectious; therefore, early cancer, except in bones and joints, does not cause pain. This is because the changes taking place in the cells represent the reversion of a normal cell to a cancer cell. The process is insidious and is not due to inflammation. If early cancer were painful like toothache, thousands of lives would be saved annually. Cancer is not hereditary, though a certain susceptibility seems to exist, especially as to individual organs and parts of the body. Therefore, as in tuberculosis, where a near relative has had cancer, other members of the family should be careful to watch for any sign or symptom that might indicate early cancer. Cancer is not due to bad blood, and no one should be ashamed to acknowledge its presence. Any unnatural discharge from a body opening, or any sore in the mouth or on the lip should be investigated at once.

When these and other facts about cancer are taught and impressed on the minds of the pupils and older students, they will become cancer conscious and urge their parents to investigate suspicious lesions.

Now someone will say that these teachings will create a cancer phobia. Perhaps so. No one ever died of cancer phobia, but millions have died of cancer. It must be impressed on the young people that it is the older people who have the cancers. They are supposed to be home teachers and convey the message to their parents. They must, however, remember that as they grow older and take the place of the home folks, they are to be careful of all phases of their health.

J. L. CAMPBELL, M.D.

THE HEART IN PREGNANCY AND THE CHILDBEARING AGE

The Heart in Pregnancy and the Childbearing Age by Burton E. Hamilton, M.D., and K. Jefferson Thomas, M.D., with a section entitled "Delivery and Obstetrical After Care of Cardiacs" by Frederick C. Irving, M.D., published by Little, Brown & Co., Boston, probably is destined to be a classic ranking with that of Angus McDonald's "The Bearings of Chronic Disease of the Heart Upon Pregnancy, Parturition and Childbed," published in 1878 and with Sir James MacKenzie's "Heart Disease and Pregnancy," published in 1921.

It reviews the study of the heart clinic of the Boston Lying-In Hospital since its inception twenty odd years ago. The clinic was wise and fortunate in maintaining over a period of many years a research residency for study of the physiologic aspects of the heart and circulation in pregnancy. The product well illustrates the value of the combined services of obstetric, internist and laboratory specialists in the care of sick women who are pregnant. The style is lucid, readable and convinces one that the 850 cardiac pregnant patients mentioned were in the care of masterful and sane observers. Outside of the Southern states the incidence of heart disease in ambulatory women of childbearing age in America probably is 1 per cent. The definition of a "cardiac" in pregnancy should be: a woman whose heart may cause death or disability during pregnancy or puerperium.

The authors make the significant observation: "*the young heart, if not diseased, will not fail, no matter how great the strain.*" . . . Since the first World War the following criteria for a diseased heart have crystallized, none of which has been seriously challenged: (1) enlargement; (2) diastolic murmur; (3) significant disorders of the beat, and (4) signs or history of heart failure with dyspnea. The first two are the most important. They cannot think of a dozen instances in 50,000 deliveries when a woman, who entered pregnancy or puerperium with neither of these signs, developed heart failure during pregnancy; whereas, close to 1 in 5 of those who did have one or both of these two signs showed heart failure. While the function tests and laboratory requirements are of value "recognition of the young cardiac is still based on direct examination and history-taking."

Ninety-two per cent of the cases were rheumatic heart disease (total 781). There were 28 congenital heart disease cases, 2 cardiovascular syphilis cases and 39 miscellaneous cases. The maternal death rate was found to be much the same in each of the etiologic classes.

Mitral stenosis is more common than all other serious lesions combined. It is diagnosed by the characteristic mitral diastolic murmur. It

behooves the physician to learn to recognize this murmur. Systolic murmurs in pregnancy are so unreliable that few serious mistakes will be made if one never classifies as a cardiac in pregnancy any woman whose only sign is a loud systolic murmur. However, this murmur led to a diagnosis of coarctation of the aorta 4 times and serious congenital interventricular septal defects 7 times, and other congenital defects 5 times. Classification has been simplified into favorable and unfavorable. The latter are characterized by (1) signs of or history of heart failure; (2) presence of a dangerous disorder of the heart beat, and (3) cardiacs who have a complicating serious disease.

Probably the most important contribution of the book is the presentation of data in regard to the load of pregnancy and the application of this information to the therapy. The effects of age on prognosis was not evident until the neighborhood of age 35 when the incidence of failure for those older is double that of those younger. The risk did not change a great deal with parity excepting as the patient passed the thirty-fifth year. Of course, additional complications such as diabetes or tuberculosis add greatly to the danger.

Treatment of Cardiacs in Pregnancy

Congestive heart failure was the only cause or a contributing cause of two-thirds of the fatalities. The most important single observation is that heart failure seldom occurs for the first time at or following delivery. If patients have not had failure before term the maternal mortality is low, scarcely more than 2 per cent. However, 75 per cent of the deaths of all cardiacs occurred in the brief period of the puerperium. "Even the most carefully conducted delivery brings death closer to those already crippled. If patients have had failure before term and have been cured of the failure, it is 8 per cent. If women are actually in congestive heart failure at the time of delivery, the maternal death rate is much higher. In our first 41 cases, eleven had severe congestive heart failure; five of these died—a maternal mortality of 45 per cent. This served to teach us early in our work that prevention of congestive heart failure before delivery is essential for success with cardiacs in pregnancy."

"The important rule that emptying the uterus successfully does not lessen the load of pregnancy effectively and suddenly is proved by the very high death rate among women who are delivered while in congestive heart failure." By careful observation of many cases with congestive heart failure first developing in pregnancy they were able to plot roughly a curve of the load of pregnancy. They found that the greatest load began slowly at the beginning of the sixth month, reaching a peak at the eighth month and then declining to term. Congestive failure is most likely to occur during this heavy

load. Other things exaggerate the load: undue strain, physical or mental; infections of all types, including oral sepsis and especially respiratory lung infections; anemia, excessive body weight, alcoholism, etc. All such burdens to the pregnant cardiac patient should be scrupulously avoided. A few rules are appropriate. An obese cardiac is an insufficiently treated cardiac. Allow only a maximum gain of fifteen pounds during pregnancy. A cardiac in pregnancy should have four and one-half million red blood cells per cubic millimeter of blood and not less than 80 per cent of hemoglobin.

Regimen Suggested For Prevention of Congestive Heart Failure in Pregnancy

Go to bed at the onset of any illness and call the physician immediately. Make about the same amount of physical effort each day. Nine hours in bed every night and one hour during the day. Limit number of flights of stairs to climb to five. Walking should be reduced to what is reasonably necessary around the house. Avoid shopping. Report for examination every week and, above all, immediately if there develops a cough, blood spitting, asthma, dyspnea or orthopnea. Persistent rales at the lung bases posteriorly is the first reliable sign of congestive heart failure in a cardiac in pregnancy.

The important points of treatment of congestive heart failure in pregnancy can be stated briefly:

1. It should be recognized early.
2. The patient should be put to bed at once with all appropriate rest aids, special nursing, sedatives, oxygen.
3. Food, fluids, bowels should be managed carefully, starting with Karell diet.
4. In some cases venesection should be considered.
5. Digitalis and diuretics as usual.

Here are a few of the articles mentioned of a heart clinic in a pregnancy clinic.

- (a) A cardiac is always a cardiac.
- (b) Any cardiac may fail at any time.
- (c) The load of pregnancy on the heart may change quickly, therefore examine patients often.
- (d) Instruct patients to report symptoms of failure at once.
- (e) Once a heart failure develops during pregnancy, the patient must be kept in the hospital or under hospital conditions until she has been delivered.
- (f) Heart failure will reappear promptly if a patient is allowed to resume the condition under which it appeared. If cardiacs were adequately followed, the commonest reasons for therapeutic abortions would be removed.

Congestive heart failure is the most important cause of death occurring in two-thirds of the fatal cases. These are largely preventable. Of

the other more or less unpreventable deaths subacute bacterial endocarditis and embolism occur not infrequently. High among the causes of non-congestive failure deaths is puerperal sepsis and this bears a more or less direct ratio to the incidence of operative deliveries. Even with the best of care favorable cardiacs in pregnancy have 2.5 per cent mortality and they do not expect to lower this greatly. All cardiacs must pay extra for their children. An interesting table is presented for computation of the risk that any cardiac takes in pregnancy.

Delivery Care and After Care

Conservatism in delivery with due regard to the load of pregnancy curve has aided in reducing the mortality since about three-fourths of the fatalities occur in the puerperium. Since these studies have shown that the load of pregnancy is heaviest in the sixth, seventh and eighth calendar months, the conclusion is inevitable that (1) it is dangerous to interrupt any cardiac during this critical period; (2) there is little risk of beginning or increasing failure in the last month; (3) the likelihood of obtaining a living child from a cardiac is much improved if delivery occurs after the eighth month, and (4) that artificial termination of pregnancy for the patient while in heart failure is dangerous at any time, but particularly after the fifth month.

Statistical data are presented to convince anyone of the validity of the foregoing conclusions. If "unfavorable" cardiacs present themselves in the early months before the load of pregnancy is heavy, pregnancy is interrupted by abdominal hysterotomy and at the same time sterilization is done if necessary. If she refuses interruption she is cared for by the cardiologist until labor sets in, unless some obstetrical or other complication not related to the heart appear.

Labor was found not to be shorter or longer than that of non-cardiac patients. Little food or fluid is given because of the dangers of vomiting and aspiration. If ketosis develops it may be corrected by intravenous injection of small amounts of 50 per cent glucose solution. Large amounts of fluid are dangerous in that they may over-strain the heart. Excitement producing drugs are avoided. One-fourth grain of morphine subcutaneously in the early stage, followed by two ounces of ether in two ounces of oil by rectum relieves and does not excite the patient. When the cervix approaches full dilatation, preparations are made for delivery. Ether anesthesia by open drop method or by closed method with oxygen is given with each pain until the patient is relieved. When the cervix is fully dilated and the head reaches the pelvic floor, the fetus is delivered by forceps, preceded by episiotomy as ordinarily necessary. Bleeding should be as little as possible. Cesarean section is used if there is cephalopelvic disproportion.

In the after care the danger of overloading

the heart by administration of fluids is great. There were no restrictions placed upon nursing the baby except in the sickest cases. The fetal mortality dropped from 18 to 14 per cent from 1921 to the present, but this was much less than the maternal mortality reduction.

Prematurity in the fetus is often associated with prolonged congestive heart failure in the mother and this accounts for high fetal mortality in the prematures. Those infants born at full term do as well as with non-cardiac mothers.

RICHARD TORPIN, M.D.

OCD PUBLISHES NEW RECOMMENDATIONS ON BURNS AND WOUND INFECTIONS IN AIR RAID CASUALTIES

The Medical Division of the Office of Civilian Defense has revised its pamphlet "Treatment of Burns and Prevention of Wound Infections" to incorporate new techniques that have been developed within the past year. The recommendations in this pamphlet are based on recent directions of the Committee on Chemotherapeutic and Other Agents and the Subcommittee on Burns of the Committee on Surgery of the Division of Medical Sciences of the National Research Council. Originally drawn up by these committees for the armed forces, the recommendations have been modified to adapt them to the problems involved in the treatment of civilian casualties.

Recommendations for the use of sulfonamides are accompanied by the observation that these drugs must be used more cautiously in the treatment of civilian wounds than is necessary in the care of military casualties, for the following reasons:

"The injured may include individuals of all ages and with various types of pre-existing disease, instead of a selected group of healthy young males. The possibility of toxic effects is therefore greatly enhanced. Moreover, it is assumed that in civilian injuries, hospitalization will be possible in a relatively short time, whereas in military operations such is not always the case. This usually makes it possible to postpone all consideration of chemotherapy until the injured have been hospitalized. It is then possible to administer sulfonamides with better safeguards and to consider such contraindications as other pathological conditions or known sensitivity to individual drugs. The dangers of dehydration can also be better prevented or overcome under such circumstances."

In a discussion of intra-abdominal wounds leading to perforation of the hollow viscera, the revised pamphlet advises sodium sulfadiazine as the drug of choice for parenteral administration, which is considered preferable to oral therapy during the first 48 hours. Sulfanilamide was recommended in the previous edition. Concentrated solutions of sodium sulfadiazine are not recommended for subcutaneous or intramuscular routes, but it is pointed out that weak solutions (0.5 per cent) may be used with little danger of sloughing of the tissues.

Special emphasis is placed on the danger of giving sulfonamide drugs to a patient who is not voiding normally (over 1,000 cc. per day).

"Should circumstances require sulfonamide adminis-

tration in the presence of inadequate urinary output, the urine should be watched for evidence of renal damage and the dosage of drug adjusted so that a blood concentration, as evidenced by daily determinations, not to exceed 10 mg. per cent, is maintained," the pamphlet warns. "If further diminution of the urinary output occurs, administration of the drug should be stopped immediately and fluids should be forced orally, if possible, and by means of glucose and water (5 per cent in sterile distilled water), intravenously if necessary. If anuria due to bilateral obstruction of the ureters develops, ureteral catheterization and lavage of the renal pelvis may be required."

The emergency care of burns is outlined as follows:

"Whenever casualties with extensive burns can be admitted to hospitals without delay, and definite treatment can be instituted promptly, morphine sulphate, one-half grain, should be administered at the scene of the incident and no local therapy applied to the burned area except sterile gauze to exposed surfaces to prevent infection."

The most notable change in the OCD pamphlet is the withdrawal of the recommendation of the use of ointments or jellies containing tannic acid in the first-aid treatment of burns. The new advice given is that when definitive care cannot be carried out within two hours, the patient should receive sufficient morphine to relieve pain (not less than one-half grain, except in patients with lung and bronchial damage, the very old or the very young); and the burned surfaces should be covered with sterile boric acid ointment or petrolatum over which one or two layers of gauze of fine mesh (44) is to be smoothly applied. Over this dressing thick sterile gauze or sterile cotton waste is to be placed and the entire dressing is to be bandaged firmly but not tightly. Substitution of jelly containing 5 per cent sulfathiazole in water-soluble base, which is supplied in the OCD carrying case A for Mobile Medical Teams, is permissible.

The discussion of definitive treatment of burns has been expanded to stress the necessity for administration of large amounts of plasma.

In patients with severe burns, quantities up to 12 units or more may be required in the first twenty-four hours," it is pointed out. "To the patient in critical condition, plasma must be given rapidly (as much as 500 cc. in 10 minutes may be necessary) and not allowed to flow drop by drop. It must never be administered by any other than the intravenous route. Syringe injection may be used. If facilities for hematocrit determinations are available, the following general rule can be used for guidance regarding the amount of plasma required. For each point that the hematocrit is above 50 per cent cells, at least 100 cc. of plasma should be administered. If clinically satisfactory results are not obtained with this dosage, larger quantities should be given." A footnote points out that rapid administration of intravenous fluids may be dangerous to cardiac patients and that the physician's judgment will have to determine the amount as well as the rate of administration in such cases.

The pamphlet describes "open" and "closed" treatment for burns. The "open" treatment which is now considered the treatment of choice and is especially recom-

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GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1943-44

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Executive Secretary—Durice Dickerson; headquarters 131 Forrest Ave., N. E., Atlanta; phone WALnut 8911; residence, JACkSON 7979.

**LIBERAL INTERPRETATION OF
GEORGIA'S NURSING LAW**

MRS. ADA GRIESERT BUSSEY, R.N.
Atlanta

President, Board of Examiners of Nurses
for Georgia

The Board of Examiners of Nurses for Georgia has been called upon, from time to time, by national organizations to cooperate in the war effort. We, of course, must interpret and administer the Georgia law to the best of our ability and at the same time go as far as possible in complying with these various requests which have come to us in a national effort to standardize and unify as well as to accelerate our war program to meet the acuteness of the military and civilian needs for nursing service.

The Bolton Act "To provide for the training of nurses for the armed forces, governmental and civilian hospitals, health agencies and war industries, through grants to institutions providing such training and for other purposes," presents a problem to various states with their different nursing laws. However, following recommendations adopted by representatives of State Boards of Examiners of Nurses, in an effort to expedite interstate registration and to bring about more uniform board rules relating to nursing, the Georgia Board of Examiners approved the modified plan as established under the Bolton Act which is designed to increase the available nurse-power of the country by preparing more nurses more rapidly. A school of nursing must provide its essential instruction and experience in from twenty-four to thirty months and at the end of that period leave them free for assignment where needed during the remaining time required to complete the thirty-six months which is in accordance with the Georgia law. In this way, the cadet or student nurse will be able to put her valuable instruction and experience in service by replacing a graduate staff nurse.

Under our Georgia law, nurses registered in other states may be issued certificates of registration provided the standards of registration

are equivalent to the minimum requirements of Georgia, and provided the individual qualifications meet the requirements set down for graduates of Georgia schools of nursing.

The Georgia Board of Examiners in following the recommendations approved by the Board of Directors of the American Nurses' Association and the National League of Nursing Education in issuing license by reciprocity by taking into consideration the following factors: First, by evaluating the credentials of a nurse who is registered in another state on the basis of preparation of the individual applicant rather than on the statutes of the state in which she originally registered. Second: Individual qualifications are considered and credentials are judged on a basis of requirements in effect in the State at the time of the applicant's graduation. Third: By giving credit for postgraduate work and/or successful experience to meet deficiencies in the student's basic professional program.

The State of Georgia requires experience in medical, surgical, pediatric and obstetric services. No equivalents have yet been adopted for any part of this minimum as this experience can be obtained only by general floor duty under supervision in an accredited school of nursing or postgraduate work.

In accordance with a section of the Georgia law governing the practice of nursing in Georgia entitled "Gratuitous and Emergency Nursing," the Georgia Board of Examiners of Nurses for Georgia authorized the District Nursing Councils for War Service to issue a recognition slip to an out-of-state nurse to practice nursing during war emergency without license from the Board of Examiners of Nurses. These statements are signed by the Chairman of the District Nursing Councils for War Service. The nurse receiving the recognition signs an agreement to help out during the war emergency and should she continue to practice nursing after the war emergency period she agrees to complete the requirements for State registration.

The Board of Examiners of Nurses for Georgia is cooperating in every way in the effort to

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GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

IS PARATYPHOID FEVER INCREASING?

With the rapid decline in the incidence of typhoid fever during the past decade more attention is being focused on intestinal infections of lesser calibre such as paratyphoid fever.

There are some who think that paratyphoid fever is increasing in incidence, and who suggest that triple or typhoid-paratyphoid A and B vaccine be again put into use. Let us see to what extent this idea is justified.

Recent advances in bacteriology of enteric infections have brought about the recognition of a large group of antigenically related organisms which have been classified under the generic name of *Salmonella*. The most prominent and best known members of this group are our old friends *Bacillus paratyphosus* A and *Bacillus paratyphosus* B, now labeled *Salmonella* or *S. paratyphi* A and *S. paratyphi* B. But these are only two of more than 100 distinct species already known, and several new members are being added each year. All of these seem to be potentially able under certain conditions to produce illness in men symptomatically similar to paratyphoid fever.

The laboratories of the Georgia Department of Public Health have identified 19 members of the *Salmonella* group, which are listed by name and incidence in Table I. These were isolated from 81 persons ill with enteric fevers or disorders other than typhoid or dysentery.

TABLE I

Species of	NUMBER OF CASES			Total
	1941	1942	1943	
<i>Salmonella</i>				
<i>S. paratyphi</i> A	1	1	2	4
<i>S. paratyphi</i> B	5	6	9	20
<i>S. cholerae</i> suis	2	6	4	12
<i>S. typhi</i> murium	0	11	4	15
<i>S. bredeney</i>	0	1	0	1
<i>S. derby</i>	0	2	1	3
<i>S. oranienburg</i>	1	2	3	6
<i>S. montevideo</i>	1	3	0	4
<i>S. newport</i>	1	1	0	2
<i>S. litchfield</i>	0	1	0	1
<i>S. muenchen</i>	0	0	1	1
<i>S. bareilly</i>	1	0	0	1
<i>S. sendai</i>	1	0	0	1
<i>S. panama</i>	1	0	0	1
<i>S. anatum</i>	0	2	3	5
<i>S. give</i>	0	1	0	1
<i>S. meleagridis</i>	0	1	0	1
<i>S. poona</i>	0	0	2	2
TOTAL.....				81

It is true that as shown in this table the two paratyphoids are well represented, being isolated in 24 of the 81 cases. On the other hand two

other members, *S. cholerae* suis and *S. typhi* murium were found 27 times in persons presenting paratyphoid-like symptoms. Hence paratyphoid fever is not a clinical entity caused by a specific agent, but a syndrome which may be due to any one of the various members of the *Salmonella* group. Nor can a clinical diagnosis of true "paratyphoid fever" be made except by the isolation of one of the two paratyphoid members of the *Salmonella* group. The term *Salmonella* fever or infection is, therefore, more correctly applicable than "paratyphoid fever."

While all of the 100 or more members of the *Salmonella* group are more or less closely related, there is no satisfactory evidence yet produced to prove that vaccines prepared from any one member will afford protection to man against any others. In other words, Typhoid-paratyphoid A and B vaccine apparently protects only against exposure to these three organisms, but not to any other members of the *Salmonella* group.

Typhoid vaccine has played, and is still playing, a major role in the control and eradication of typhoid fever. It has even greater value during war and postwar conditions. Typhoid fever though now relatively low in incidence is still a major public health problem, many times greater than paratyphoid (A and B) fever. The taking of even plain typhoid vaccine is an unpleasant experience at best. The inclusion of the paratyphoid A and B components markedly increases the toxicity of the vaccine without adding materially to its efficiency.

Granting that there has been a slight increase in proven cases of *Salmonella* infection, including *S. paratyphi* A and B, the total incidence of true paratyphoid infection is relatively insignificant. Therefore, the writer does not feel that the resumption of typhoid-paratyphoid vaccine, with its higher toxicity and increased reaction, is justified at this time.

T. F. SELLERS, M.D., *Director*,
Division of Laboratories,
Georgia Department of Public Health.

LIBERAL INTERPRETATION OF GEORGIA'S NURSING LAW

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make available the number of nurses needed to maintain adequate nursing service, but at the same time we realize that we must safeguard standards of nursing education in order to provide safe Nursing Service.

"The Georgia Nurses will do voluntarily what is expected of them as long as they know what is wanted and why . . . and feel that they are being treated fairly."

—Bernard Baruch
(applied to Georgia Nurses)

WOMAN'S AUXILIARY

President—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.

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MRS. RANDOLPH'S MESSAGE

Mrs. William T. Randolph, of Winder, president-elect of the Woman's Auxiliary to the Medical Association of Georgia and chairman of organization has issued the following interesting message to members:

"At the outbreak of the world conflict our organization was content to be steadfast and hold on as we were: a group of women bound together with mutual high aims and purposes. No longer can we be satisfied to stand still. Steady growth and informed minds are indicated. Common interests draw people together and the interest of all peoples today is our theme for the year 'Health for Defense.' There is a place for every doctor's wife in this great defense work. How much better each can serve when she supports her own organization and understands the tasks and objectives and how to accomplish them.

"The time has come when the Auxiliary has so proved its worth that the public wonders why all doctors' wives are not members of their own organization. This chairman's aim is that every doctor's wife become affiliated with her auxiliary and where no auxiliary exists to organize one. Much valuable information and help may be secured from Mrs. Eustace A. Allen, chairman of organization of the Woman's Auxiliary to the American Medical Association; Mrs. Olin S. Cofer, president of the Auxiliary to the Medical Association of Georgia; and the chairman of organization, who is anxious to serve."

EIGHTH DISTRICT

Mrs. T. V. Willis, of Brunswick, was elected manager of the Woman's Auxiliary to the Eighth District Medical Society at a recent meeting held in the Paul Harvey Memorial Building of the First Methodist Church in Waycross. Other officers named were Mrs. J. R. Gray, of Waycross, vice-manager; and Mrs. Louis Smith, of Lakeland, secretary and treasurer. Mrs. W. M. Flanagan, of Waycross, presided over the meeting, at which Mrs. Olin S. Cofer, Atlanta, president of the Woman's Auxiliary to the Medical Association of Georgia, spoke on the year's theme, "Health for Defense." Mrs. Cofer stressed the need for health education and its importance in wartime and in the peace to follow. She proposed that communities establish a health planning council dividing the work of health educa-

tion among various civic groups, utilizing the health films and health library, owned by the State Medical Society and available for education purposes. Dr. W. A. Selman, of Atlanta, president of the Medical Association of Georgia, spoke on "Spare Hours on the Home Front," urging the women to lend every effort to the speedy winning of the war by participating in the various war services.

Mrs. W. C. Parker sang "When the Lights Go On Again," accompanied by Miss Betty Reese and Miss Mary Ellen Nobles gave a humorous reading, "New Shoes." Following the meeting a social hour was enjoyed. Guests included the Rev. R. T. Russell, who gave the invocation; health chairman of Waycross organizations and the wives of doctors in the service at the Waycross air base.

COBB COUNTY

Mrs. Ralph Fowler and Mrs. Herbert Fowler were co-hostesses at the recent meeting of the Woman's Auxiliary to the Cobb County Medical Society in Marietta. Featuring the program was the round table discussion participated in by Dr. J. E. Lester, Professor Shuler Antley and Professor William Booth, principal of Woodstock School, on social hygiene and problems in Cobb County. Mrs. Charles D. Center, of College Park, associated with the State Health Department, spoke on "Social Hygiene and Sex Education." Mrs. Olin S. Cofer, of Atlanta, state auxiliary president, discussed the year's theme, "Health for Defense." Mrs. G. O. Allen, president, presided over the business session, at which members voted to furnish 14 Red Cross kits. Later a delightful social hour was enjoyed.

BARROW COUNTY

Mrs. C. B. Almand, of Winder, was elected president of the Woman's Auxiliary to the Barrow County Medical Society at a recent meeting held at the home of Mrs. Ernest Harris in Winder. Other officers elected were Mrs. S. T. Ross, vice-president; Mrs. W. T. Randolph, treasurer; Mrs. E. M. McDonald, historian, and Mrs. E. R. Harris, corresponding secretary. The president appointed Mrs. Harris as parliamentarian and Mrs. W. L. Matthews as corresponding secretary. It was announced that \$427.91 was collected during the recent drive for the Woman's Field Army For Control of Cancer, sponsored by

the Auxiliary with Mrs. C. B. Almand in charge.

The organization was honored recently when Mrs. W. T. Randolph, one of its most enthusiastic workers, was named president-elect and chairman of organization of the Woman's Auxiliary to the Medical Association of Georgia. It was announced that Mrs. Randolph and Mrs. Harris, past president, would attend the state executive board meeting in Atlanta. Auxiliary members are assisting in the war effort by contributing kit bags and also in their production. Mrs. David C. Williams was welcomed as a new member. Mrs. S. T. Ross presented the following program: "Highlights of the State Convention" by Mrs. E. R. Harris, and "Memorial to Mrs. J. Bonar White," by Mrs. W. L. Matthews.

FULTON COUNTY

The Woman's Auxiliary to the Fulton County Medical Society has held two recent interesting meetings at the Academy of Medicine in Atlanta. Mrs. William Milas Dunn, president, presided each time and much enthusiasm was manifested in the continuance of the work of the Doctors' Aide Corps during the coming year.

At the September meeting Ralph McGill, widely known editor of the *Atlanta Constitution*, gave an excellent talk on his recent trip to London, where he was the guest of the British Ministry of Information. After his talk he answered questions from his listeners. Dr. George W. Fuller, president of the Fulton County Medical Society, gave suggestions to members for their year's work. Recognition was given to members of the auxiliary who have worked during the summer months at the blood type registry, under the direction of Mrs. John Funke. Recently the personnel of the OPA, that of one of Atlanta's largest stores, and the hundreds of students here in the Navy's V-12 program have all been typed by the auxiliary members. A delightful luncheon followed the meeting, with Mrs. Clifford Eskey and her committee in charge.

At the October meeting Commander Francis J. Carr, Medical Corps, United States Naval Reserve, senior officer at the Naval Air Station here, gave a graphic talk on "Aviation Medicine." Especially interested in his talk were many Auxiliary members who have sons in the air services and Commander Carr answered questions for them later. Mrs. Allen Bunce gave one of her entertaining and instructive reports of the deliberations and social activities of the recent national auxiliary gathering. Later a delightful luncheon was served by Mrs. Hulett Askew and her committee.

BALDWIN COUNTY

The Woman's Auxiliary to the Baldwin County Medical Society met recently at the home of Mrs. L. P. Longino in Milledgeville, with Mrs. John Wiley as co-hostess. Mrs. Sam Anderson, newly elected president, presided and 16 members were present. The constitution was re-

vised and by-laws read and accepted. Delegates to the state convention in Atlanta reported, announcing that for the third time since 1939 Baldwin County had won the Brawner Cup for outstanding auxiliary work. It was also announced that Mrs. Richard Binion, retiring Baldwin president, was elected third vice-president and state scrapbook chairman at the convention. The Auxiliary voted to continue to serve first aid courses, nurses aid training, other Red Cross activities and conservation of health.

The fall activities of the Baldwin County group got under way with a meeting held at the home of Mrs. C. B. Fulghum with Mrs. H. R. Cary and Mrs. O. C. Wood joint hostesses. Mrs. Anderson presided and 16 members were present. Mrs. J. I. Garrard, yearbook and program chairman, presented the yearbook for 1943-44. The yearbook is dedicated to Mrs. C. H. Richardson, under whose leadership the Auxiliary won state and national recognition. Mrs. Garrard introduced Mrs. Edwin Allen who gave a very interesting talk on the value of the auxiliary to the medical society. Lieut. Comdr. Ralph Christian, of the Navy, talked on the medical set-up in his department, showing constructive figures about the treatment of the sick and wounded in the war, these being encouraging to those on the home front.

NEWS ITEMS

The Second District Medical Society will hold its next meeting at Thomasville, April 13, 1944. The Finney General Hospital and the Thomas County Medical Society will be hosts. Major Hilton Read, chief of staff of the Finney General Hospital, extended the invitation in behalf of the hospital and the Thomas County Medical Society. Dr. Read and the society will arrange the program.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, October 21. Dr. Robert L. Sanders, Memphis, Tenn., an invited guest, spoke on "The Gallbladder Problem." He is past president of the Southeastern Surgical Congress. The Georgia Section of the Congress entertained Dr. Sanders at dinner at the Biltmore Hotel.

The Fifth District Medical Society met at the Academy of Medicine November 4. Buffet supper was served.

The Bibb County Medical Society met at Ridley Hall, Macon, October 19. A "Colored Moving Picture Film on Sulfonamide Therapy" was shown.

The medical and surgical staffs of the Georgia Baptist Hospital, Atlanta, met in the "Nurses' Dining Room" October 19. Dr. Eustace A. Allen was in charge of the program.

Dr. William Waugh, Nashville, after a recent illness has resumed practice at Nashville and Pearson.

The staff of the Department of Medicine of Grady

Hospital, Atlanta, met on October 24. Titles of cases reported were: "Transfusion Reaction," "Megaesophagus" and "Herpes Zoster." Titles of cases reported on October 17 were: "Follow-up on Previous Cases," "Recurrent Thyrotoxicosis" and "Cardiac Outlet in Anemia."

The Georgia Medical Society, Savannah, met October 26. Motion picture on "Postpartum Hemorrhage" was shown. This is the last film made by Dr. Joseph DeLee. Members of the medical corps of the United States Army and Navy were urged to attend.

Dr. G. Hugo Johnson practiced medicine at Hardeeville for nine years and recently moved his office to 116 Oglethorpe Avenue, Savannah, to continue his practice at the latter location. His father, Dr. G. Hugo Johnson, occupied this suite of offices for many years during his life from which he treated hundreds of satisfied patients.

Dr. D. Lloyd Wood, Dalton, has been inducted into the Air Corps of the United States Army and reported for duty at McDill Field, Tampa, Florida, October 24. He is Vice Councilor for the Ninth District and one of the Association's most loyal members.

The Bibb County Medical Society met at Ridley Hall, Macon, November 2. Dr. J. D. Applewhite was the principal speaker.

The staff of Emory University Hospital, Emory University, met on November 2. Dr. J. C. Massee and Dr. Roy R. Kracke reported a case of "Undiagnosed Hepatomegaly"; Dr. Lon Grove and Dr. Robert L. Whipple, Jr., reported a case, "Pyloric Obstruction."

Dr. M. E. Winchester, Brunswick, attended a War Conference of the American Public Health Association held in New York City, October 11. He received the Award of Merit for his outstanding work in Glynn County.

Dr. J. V. Santa Maria, public health director of Chile, South America, visited Dr. V. P. Sydenstricker, Augusta, to discuss nutrition problems affecting Chile.

Lt. Robert Norton, Rome, reported for duty in the Medical Corps of the U. S. Naval Reserve at Norman, Oklahoma, October 25.

The Fifth District Medical Society met at the Academy of Medicine, Atlanta, November 4. The program

consisted of an "Address" by Dr. W. A. Selman, Atlanta, president of the Medical Association of Georgia. Titles of scientific papers were: "Penicillin" by Major Harvey V. Taylor, M. C., Lawson General Hospital; "The Possibility of Exotic Diseases Being Disseminated by the Return of Our Fighting Forces," Dr. Robert E. Dyer, director, National Institute of Health; "The Oglethorpe University Medical School," Dr. Carl C. Aven, professor of medicine of Oglethorpe University Medical School. Officers of the Fifth District Medical Society who were re-elected are: Dr. Jeff L. Richardson, president, and Dr. George A. Williams, secretary-treasurer, both of Atlanta.

The Bulletin of the Fulton County Medical Society published November 4 carried articles entitled: "President's Message" by Dr. George W. Fuller; "Ninth Annual Meeting of the Sheffield Clinic," Dr. J. L. Campbell, chairman of the Cancer Commission of the Medical Association of Georgia; "Will Totalitarianism Reach the Medical Profession?"; abstract of an address by Dr. R. L. Sanders, Memphis, Tenn., entitled "The Problem of the Gallbladder: Factors in Surgical Results."

Dr. Estelle Pattillo Boynton announces the opening of her offices at 26 Linden Avenue, N. E., Atlanta. Practice will be limited to internal medicine and neurology.

OBITUARY

Dr. Wade Woodward, Decatur; University of Georgia School of Medicine, Augusta, 1899; aged 75; died at his residence September 27, 1943. Born in Montmorenci, S. C., and attended school there. He practiced medicine in Augusta for a number of years then became associated with Upjohn Company, Kalamazoo, Mich., after working for that company for more than 30 years, he retired on account of ill health. He was a member of Trinity Memorial Church, Decatur, and formerly a member of the Board of Stewards. Surviving him are his widow, two sons, Wade Woodward, Jr., Decatur, and Will V. Woodward, Washington, D. C.; two daughters, Mrs. E. C. Brink, Decatur, and Mrs. A. M. Quarterman, Pensacola, Florida. Rev. S. D. Cherry and Rev. A. B. Couch officiated at the funeral services conducted at Trinity Chapel. Burial was in Decatur Cemetery.



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THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL ASSOCIATION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

VOL. XXXII

Atlanta, Georgia, December, 1943

Number 12

VIEWS OF THE NEWS

WAGNER-MURRAY BILL, S. No. 1161

The Very Rev. RAIMUNDO DE OVIES,
Litt.D., LL.D., D.D., Dean of the
Cathedral of St. Philip
Atlanta

On June 3 of this year, Senator Robert F. Wagner, of New York, and Senator James Murray, of Montana, introduced in the Senate bill 1161.

Last Wednesday night I heard Senator Wagner speaking over the radio on this proposed measure. It sounded quite all right; and his address, as well as his bill, was couched in the language of a true humanitarian. Listen for yourself to the wording of the preamble:

A bill to provide for the general welfare; to alleviate the economic hazards of old age, premature death, disability, sickness, unemployment and dependency; to amend and extend the provisions of the Social Security Act; to establish a Unified National Social Insurance System; to extend the coverage, and to protect and extend the social security rights of individuals in the military service; to provide insurance benefits for workers permanently disabled; to establish a Federal system of unemployment compensation, temporary disability, and maternity benefits; to establish a national system of medical and hospitalization benefits; to encourage and aid the advancement of knowledge and skill in the provision of health services and in the prevention of sickness, disability, and premature death; to enable the several states to make more adequate provision for the needy aged, the blind, dependent children, and other needy persons; to enable the states to establish and maintain a comprehensive public assistance program; and to amend the Internal Revenue Code.

The magnitude and comprehensiveness of the proposals, however, are more than I can digest; and the implications of several of the recommendations are disturbing, to say the least.

Senator Wagner did not go into that phase of the bill in his speech last Wednesday.

Broadcast over Radio Station WSB, Atlanta, Sept. 21, 1943.

He spoke in general terms—beautifully,—vaguely — and threw no light at all upon the very serious questions that any good economist might ask. Tonight I shall discuss only one of those questions — “What is to become of medicine as we now know it, if this bill passes the Senate and the House? It should be asked; and the whole future of medicine and the public health rests upon the answer!

As a layman — from the medical standpoint — I have no quarrel with the ideal and the altruistic purpose set forth in the bill; but I do question the method proposed and the machinery that would be set up under certain provisions of the bill.

In the first place, it is not a wartime measure, but a detailed blueprint for post-war and peace-time procedure. We should plan for the peace; but the time for the legislature to enforce any inclusive and all embracing plan is not yet! Social legislation is necessarily a growth — not a product of fiat. We can provide legislation for many things that belong to social security; in fact, we have done so through the decades; but social legislation and social democracy are two very different things. Germany of today is the fruit of social democracy — we want none of it here — and our men are dying on battlefields at this moment to make sure that we shall remain free from that political and tragic error.

So I want all the desirable objectives proposed in the Wagner-Murray bill — but not in the way and manner these honorable senators plan to achieve them.

I know many men in the medical profession here in Georgia — and elsewhere — whom I admire greatly; but I would not entrust to anyone or any group of them political power to dictate the course that medical practice must take — either in this State or in the Nation. I distrust politically-

mind and politically-ambitious doctors as much as I distrust politically-minded and politically-ambitious preachers. I have no objection to either doctor or preachers doing their political part as citizens and as individuals, but I earnestly desire to keep the politicians from meddling with the Church, as long as the Church keeps within the rights which are guaranteed under the Constitution — and that goes for the Jehovah Witnesses, too, in my honest opinion. Neither do I want to see politics curtail the rights of physicians, in their search for scientific truth and practice. Let us leave the profession of medicine free to govern its own members, just as the Church is free to do the same thing; that is, in matters which pertain to those two high callings.

But bill No. 1161 would put the affairs of medicine — in the entire nation — under the control of the Surgeon General of the U. S. Public Health Service; and he would, of course, be a political appointee. I want none of it! So — as a non-medical man — I am saying so, publicly, which a member of the medical profession could not well do, without somebody accusing him of ulterior motives.

Let us see what powers the Surgeon General would have under the provisions of this bill:

- "1. To hire doctors and establish rates of pay — possibly for all doctors;
2. To establish fee schedules for services;
3. To determine the number of individuals for whom any physician may provide service;
- "4. To establish qualifications for specialists;
5. To determine arbitrarily what hospitals or clinics may provide service for patients.

The bill provides (Section 905):

- "1. Any physician qualified by a State . . . can furnish medical service in accordance with such rules and regulations as may be prescribed; (by the Surgeon General);
2. Every individual . . . shall be permitted to select his own doctor or to change such selection in accordance with such rules and regulations as may be prescribed; (by the Surgeon General);
3. The Surgeon General shall publish the names of general practitioners who have agreed to furnish services;
4. Services which shall be deemed to be specialist services shall be those so designated by the Surgeon General . . .
5. General practitioners must recommend services of specialists;

7. Payments to physicians may be made:

- a. According to a fee schedule approved by the Surgeon General."

This bill also provides that:

Sec. 960. Every employer shall pay a tax on wages paid to individuals (up to \$3,000 per annum) of 6 per cent.

Sec. 961. Every employee shall pay a tax—deducted from wages on earned income—up to \$3,000 per year, of 6 per cent.

That is 12 per cent taxed on payrolls.

Sec. 963. Every self-employed individual shall pay a tax on the market value of his services at 7 per cent.

Sec. 962. Federal, state and municipal employees (under certain conditions) shall pay a tax of 3½ per cent.

Now, add that to the existing Social Security rate of 5 per cent and income taxes, etc., etc., and see what this security will cost us! It is, in round figures, 12 billion dollars raised through bill 1161. However, only 3 billion would be allocated to the medical care and hospitalization account; 2 per cent or 48 million to be spent by the Surgeon General on medical education and training — and what a nice little sum for good politicians to play with! — or any other individual.

I'm an honest man — I hope — but I would not like the responsibility for over 110 million people and 48 million dollars a year! It would not be fair to any physician who might be appointed as Surgeon General, either. I trust more in many — average, intelligent and honest men in an honorable profession — than in any superman. I prefer to confine the superman to the funnies. In real life he would be a menace — like Hitler — or any other dictator.

The money which it is proposed to spend under the direction of one man for medical education could do very many things to advance medicine and medical care by free medicine, if the government is anxious to spend such a sum each year. For instance, it would provide these possibilities:

1. Assume the total costs of operating 66 accredited medical colleges in the United States—\$21,491,248.
 2. Subsidize 22,000 medical students to the extent of \$700 per year for a period of four years—\$15,400,000.
 3. Spend for other research each year—\$11,108,752.
- Total \$48,000,000.

Or, put another way:

(Continued on page 386)

THE PRESIDENT'S PAGE

LOOKING AHEAD

On Nov. 19, 1943, in Chicago, at the annual meeting of the secretaries and editors of constituent State Medical Associations, I was impressed by the amount of work already done in planning for the health and medical welfare of the people in the United States when peace is declared.

Dr. James E. Paullin, Atlanta, President of the American Medical Association, addressed this meeting and outlined the proposed postwar planning. He told of the collaboration of the American Medical Association, the American College of Physicians and the American College of Surgeons in appointing a committee with Dr. Irvin Abell of Louisville, Ky., as chairman, through which physicians returning from the war could be provided with refresher courses before entering civilian practice of medicine. These courses would be especially attractive to 20,000 young physicians who have never engaged in private practice. Many others will want additional internships and houseships and some special training in a specialty. Others will want to change locations while many will return to a former practice.

This Central Committee will study the needs of these returning men. The State Committees could collaborate with the Central Committee and see what the country offers to these men. These committees are already working on plans to see that all the people have medical care. This entails detail work, not only with the proper distribution of doctors but work communities to see that proper facilities — laboratories, x-ray apparatus, hospitals and clinics — are furnished these doctors. In other words, it is up to the medical profession to furnish the medical personnel, and up to the individual communities to provide the hospitals, health centers and clinics to make it possible for doctors to furnish to all the people adequate care.

Dr. Victor Johnson, Chicago, Secretary of the Council on Medical Education and



Hospitals of the American Medical Association, also spoke on "Hospital Training of Medical Graduates." He stated that preliminary postgraduate courses are being worked out for officers returning from the "service" and that 700 approved hospitals will furnish residencies to twelve or thirteen thousand men who had had only nine months' internships. Thirty-seven medical schools have already offered courses for these returning officers. Refresher courses will run into the hundreds, for thousands of men will want them.

Printed lists will be furnished and ready for all returning officers so that it will be an easy matter to select a course to one's own liking. A parting tribute from the best type of government in the world, to the highest type of doctors in the world, by the finest universities in the world.

W. A. SELMAN, M.D.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Association of Georgia

478 Peachtree Street, N. E., Atlanta, Ga.

DECEMBER, 1943

**STUDY SHOWS BRIGHTER OUTLOOK FOR
VICTIMS OF ANGINA PECTORIS**

The life expectancy after angina pectoris (breast pangs) first appears is about twice as long as has been commonly believed, Paul D. White, M.D.: Edward F. Bland, M.D., Boston, and Edward W. Miskall, M.D., East Liverpool, Ohio, report in *The Journal of the American Medical Association* for November 27. This statement is based on what is, so far as they know, the first study of this condition that involved a large series of cases followed over an adequate length of time.

The three physicians made a follow-up study in 1943 of 497 cases of angina pectoris that were first observed in the years from 1920 to 1930. Of the 497 patients, they say, "445 are dead and 52 are still living. The average duration to death of the 445 was 7.9 years, while the average duration from onset of the disease in the living is 18.4 years. The average duration to date for the combined dead and living is 9.0 years, which will ultimately increase when all the present survivors succumb, doubtless to a figure approximating ten years, a duration of life about double that at present widely regarded as the expectation of life after angina pectoris first appears [five years or less]. Seventy-six per cent of the deaths were due to cardiac [heart] causes. . . . A pronounced degree of nervous sensibility was a favorable influence [in survival]. Angina pectoris decubitus [an attack coming on while at rest in contrast with one during or immediately following effort] was found in 103 (20.6 per cent) of the 497 cases. There were no significant differences in the average duration of the disease to death or in the living between this group and that of the group as a whole. . . ."

The three men point out that it is not only helpful for the doctor to know something of the average life expectation in general in angina pectoris but also "for the patient himself and for his family, rather than to leave merely the impression that prediction is impossible and that the Sword of Damocles may fall at any moment. Such a state of affairs is for many persons so paralyzing that they are prone to sit for many years awaiting the end, unable to carry on a useful or happy life, or else, hardened by the thought, they may lead a reckless existence which can in truth hasten their end.

**SAYS ARTICLE IN READER'S DIGEST ON
ARTHRITIS RAISES FALSE HOPES**

"Those who attempt education of the public in matters of health and disease have a serious responsibility; they do incalculable harm when they mislead the public," *The Journal of the American Medical Association* for November 27 declares in commenting on an article in the *Reader's Digest* for November titled "Hope for the Victims of Arthritis." As is pointed out by *The Journal*, there appears in the same issue a letter from Ralph H. Boots, M.D., New York, who says the article, written by Paul de Kruiff, Ph.D., "might better have been called 'False Hope for the Victims of Arthritis.'"

Dr. Boots points out that both he and R. H. Freyberg, M.D., are referred to in the article and says that "Dr. de Kruiff did not ask either Dr. Freyberg's or my opinion regarding our results. . . ."

His position in regard to the article in *Reader's Digest* is similar to that of *The Journal* which says:

"In 1937 the Council on Pharmacy and Chemistry of the American Medical Association indicated that a product called Ertron, which is a capsule containing some 50,000 U. S. P. units of vitamin D, was not acceptable for New and Nonofficial Remedies. The flamboyant advertising then used for the product was condemned. The Council also said that there was no proof that such large doses of vitamin D are not toxic and it concluded 'Critical examination of the reports on the value of vitamin D in the treatment of chronic arthritis reveals little to warrant the belief that the beneficial effects claimed are specific.' In the years that have passed, other discussions of the use of massive doses of vitamin D in the treatment of arthritis have been published, including a symposium on the subject before the American Rheumatism Association in June 1942 and a paper by Dr. R. H. Freyberg of the University of Michigan in *The Journal*. Dr. Freyberg found the results of the use of such preparations unimpressive. The consensus of the symposium before the American Rheumatism Association was likewise far more negative than favorable to the use of this preparation. In New and Nonofficial Remedies, 1943, the Council summarized the evidence available to the date of publication in the following sentence: 'Clinical evidence does not warrant the claim that massive doses of vitamin D are of benefit in chronic arthritis. . . .' Nevertheless de Kruiff in an article in the *Reader's Digest* for November conveys to its readers his extraordinary enthusiasm regarding this technic. Apparently the article stimulated hundreds of persons with arthritis to approach their physicians and to request a change from the methods of treatment which were being followed to the use of such preparations.

GEORGIA STATE NURSES' ASSOCIATION : OFFICERS—1943-44

President—Lillian O. Nelson, Atlanta.

First Vice-President—Sister Mary Cornile, Atlanta.

Second Vice-President—Vera Mingledorff, Griffin.

Secretary—Mrs. Esther Watts, Columbus.

Treasurer—Jane Van De Vrede, Smyrna.

Chairman, Private Duty Section, G.S.N.A.—Mrs. Lilye W. Goodrum Geeslin, Atlanta.

President—Georgia League of Nursing Education, Ruth Babin, Atlanta.

President—Georgia State Organization for Public Health Nursing, Mrs. Gladys Lilly Garland, Atlanta.

Chairman—State Nursing Council for War Service, Frieda Grefe, Savannah.

Executive Secretary and Chairman—Procurement and Assignment Committee, State Nursing Council for War Service, Mrs. Mildred B. Pryse: Headquarters, 131 Forrest Ave., N. E., Atlanta. Phone WALnut 8911; residence, VERNon 1230.

Executive Secretary—Durice Dickerson; headquarters 131 Forrest Ave., N. E., Atlanta; phone WALnut 8911; residence, JACKson 7979.

DEVELOPMENT OF INDUSTRIAL NURSING IN GEORGIA

MARY G. DEVINE, R.N.

Consultant Nurse Industrial Hygiene Service,
Georgia State Department of Public Health
Atlanta

Industrial nursing is in no sense a new or recently developed branch of nursing in Georgia. The first industrial nurse was employed by the Scottdale Mills, Scottdale, Ga.¹ The Callaway Mills of LaGrange established nursing service as a cooperative effort on the part of the mills and as an Episcopal Church Mission in LaGrange, in 1908.² These nurses were employed primarily to render service to the families of the workers, rather than to do "in-plant" first aid for the workers as is emphasized in wartime production industries. The pattern of their work followed that of the "district nurse" in our own country and England. It was not until 1940, however, that the industrial nurses organized as a section of the Georgia State Organization for Public Health Nursing.

During the first World War industrial nursing in Georgia and the nation-at-large received a great impetus. Many war plants employed registered nurses to give care to the ill and injured employees as well as render service to their families. Unfortunately, following that war many industrial nurses were among the industrial personnel considered frills and furbelows and removed from the pay roll during the ensuing depression. This was not the case in all instances, but almost without exception some curtailment of the program was experienced. A few industries between 1918 and the present war emergency employed nursing personnel to carry on whatever program industry felt would be beneficial to production. Since there was no set pattern or guidance available, the programs have grown and developed according to the vision and guidance of the nurse and physician in charge, and interest of management. Those nurses are to be commended as it is on the ground work of these programs and the proof

of their value that our present industrial nursing programs are built.

Industry has learned that the nurse has an invaluable contribution to make in prevention and control of industrial hazards and accidents in "in-plant" service as well as in service to the worker and his family in "without-plant service."

The Georgia State Department of Public Health established an industrial hygiene service in the Division of Preventable Diseases in 1941, under the direction of Dr. L. M. Petrie. To this service a consultant nurse, on the staff of the Public Health Nursing Division, was assigned to function with the industrial hygiene personnel. This brings to our attention the present conception of industrial nursing as an integral part of the Industrial Health Program of Industry.

Functions of the consultant nurse are: to assist in the development of nursing and medical programs in closest cooperation of and coordination with the safety and industrial hygiene services in industry as well as an integral part of the community health program, for benefit of the industrial workers; to promote nursing service in industries not employing nurses; to plan in-service educational programs for industrial and public health nurses; and to create an interest in and an understanding of industrial nursing among state staff.

Industrial nursing is a very special field of nursing requiring particular personal qualifications;³ it calls into use skills and technics of hospital training as well as the application of public health principles and technics.

In October, 1941, there were 57 known industrial nurses in Georgia. By July 1942 the roster had increased to 121 and to date there are some two hundred industrial nurses.

Industrial nursing programs differ of necessity to meet the existing situation of individual industry. There are nevertheless basic fundamental services considered essential to any program that is to serve industry and the employees to the maximum.³ The activities as outlined in the Report of the Committee to Study the Duties of Nurses in Industry are: 1. Nursing care and

treatment of occupational injuries and illnesses and emergency care of non-occupational; 2. Assistance with medical examinations of workers; 3. Participation in the health education program; 4. Assistance with safety education and accident prevention; 5. Assistance with plant sanitation; 6. Participation in welfare activities; 7. Home nursing service; and 8. Adequate records and reports.

With the present 200 industrial nurses in Georgia and this number everexpanding, individual contact to afford assistance in developing programs and expanding the already existing programs is becoming impractical. Group meetings seem to be the answer to this problem. There are at present two active industrial nursing clubs in Georgia, and three in the formative stage. These club meetings provide an opportunity for discussion of existing problems and programs and general trends in the field, such as: importance of standing orders, adequate records, responsibility of the nurses in control of absenteeism, supervision of pregnant women, participation in complete industrial health program; necessity of knowledge of industrial processes and hazards; use of community resources and others.

The nurses in Georgia have met well the many new problems involved in the rapidly expanding war industries. By and large the industrial nurses are enthusiastic and eager for assistance in meeting these problems and in developing their industrial programs. In the war production industries which include shipbuilding, shell production, fuse plants, aircraft production and repair, and many others, emphasis has, of necessity, been placed on the clinical aspect (in-plant service) of care and treatment to the injured and ill worker to "keep the man on job!"

These industries have not overlooked the importance of care to the non-industrial injuries and illnesses which cause 90 per cent of all lost time (in normal times).⁵ In some instances industry has employed nurses to give home service to the worker and his family (without-plant service). Community resources, where available, are used to assist with these problems. The more permanent peacetime industries, such as textile industries and mercantile establishments, have eagerly made use of resources to develop their "in-plant" and "without-plant" services. Among the problems confronting the industrial nurse that have a direct or indirect bearing on the performance of the worker, and hence production, are: inadequate housing, transportation, recreation facilities for workers; lack of nurseries; inadequate feeding facilities; insufficient medical personnel; new production processes and materials; hazardous gasses, dusts, solvents, etc.; employment of physically disabled; increased employment of women, frequent labor turnover, etc. These problems are not peculiar

to Georgia, but nation-wide. The industrial nurses of Georgia are availing themselves of the resources of Federal, State and local agencies in meeting and controlling these problems.

The industrial nurses are the first line soldiers on the home front in keeping the man behind the machine, behind the man behind the gun, on the job providing guns, machines, ammunition, equipment, food and clothing to win this war.

To do the best job, the industrial nurse must be well prepared and keep abreast of current trends. To do this every nurse must avail herself of up to date reference material, current periodicals, and literature as well as membership in national, state and local professional organizations, including industrial nursing clubs. In unity there is strength.

REFERENCES

1. Letter from Miss Jean Harrell, R.N., Scottdale Mills, Scottdale, Ga. (Nov.) 1943.
2. Letter from J. K. Boatwright, Treasurer, Callaway Mills, LaGrange, Ga. (Nov. 18), 1943.
3. Report of the Committee to Study the Duties of Nurses in Industry of the Public Health Nursing Section of the American Public Health Association, published in *Public Health Nursing* (July) 1943.
4. Medical and Health Programs in Industry, No. 17 of National Industrial Conference Board.

VIEWES OF THE NEWS

Wagner-Murray Bill No. 1161

(Continued from page 382)

1. Duplicate all existing medical teaching facilities—\$22,000,000.
2. Pay 20,000 additional medical students \$700 per year during the period of training—\$14,000,000.
3. Otherwise spend \$12,000,000.

Personally, I look upon the profession of medicine as a ministry — I believe that many men are called to it as other men are called to be clergymen, preachers, or priests or whatever we call the ministers of the Church. There are bad eggs in both baskets, it is true; but both kinds of service to humanity are motivated by the highest ideals — under the fine concept of the sanctity of human personality and with continuing progress in learning and proficiency.

Better and better medical care has continuously and more widely been distributed, and made more generally available. Many of the formerly fatal diseases have been conquered; and most of the more dangerous and deadly of the other diseases have been or are being brought under control — all under the free, American system by which all our scientific victories have been won. Think of the sulfa drugs, penicillin,

vitamins, etc. All the result of free medical and chemical research.

We must, of course, give medical care to those who cannot afford it. We should make such hospitals as Grady Hospital here, and others like it elsewhere, real, well equipped and well staffed institutions, sufficient for the needs of the indigent. But there is no need of and no point in putting all of us on an institutionalized basis — either patients or physicians.

Let us keep medicine unshackled — as free as religion, the press and honest speech.

Let us preserve the personal relationship between doctors and patients which now contributes so largely towards recovery and healing.

Allow me to inject a personal note — I was desperately hurt — 200 miles from Atlanta and taken to a small hospital near the scene of the accident and given splendid service.

WSB put the story on the air within minutes — and my personal physician here in Atlanta obtained the best brain specialist available and they immediately drove that 200 miles to make sure that everything needful was done for me and — drove 200 miles back to Atlanta.

Money — fees — schedules — cannot buy such service as that — nor could any system of security administration guarantee such kindness and personal consideration.

But it wasn't social security, you see. It was the Physician's Oath and Creed put into practice for medicine can serve with the heart as well as with skill. **LEAVE IT FREE TO DO SO!**

NEWS ITEMS

Dr. James E. Paullin, Atlanta, was awarded the Hardman Loving Cup at the Ninety-Fourth Annual Session of the Medical Association of Georgia in Atlanta, May 12, 1943. Copy of the inscription follows:

"JAMES E. PAULLIN, M.D., LL.D.

Atlanta, Georgia

For his interest in medical
education and medical research
1943"

The Georgia Medical Society, Savannah, met in the Society Hall, 612 Drayton Street, November 9. Dr. M. J. Egan spoke on the provisions of the Wagner-Murray-Dingell Bill (Senate Bill 1161). Dr. Lawrence Lee discussed the Endowment Fund.

The Bibb County Medical Society met at Ridley Hall, Macon, November 16. A film in color on "Diagnosis and Treatment of Pneumonia" was shown.

Dr. Edwin W. Schwall, former clinical director of the Milledgeville State Hospital, Milledgeville, has been appointed superintendent of the Georgia Training School for Mental Defectives at Gracewood. Dr. C. G. Cox, former superintendent of the Georgia Training School, has returned to Milledgeville and will be clinical director of the Milledgeville State Hospital.

Dr. Clair A. Henderson, former Richmond County Health Officer, has resigned and accepted an offer of the Chatham-Savannah Health Department. Dr. Chas. C. Hedges resigned.

Dr. Frank Eskridge, Atlanta, has been elected to fellowship in the International College of Surgeons.

Dr. Major F. Fowler, Atlanta, spoke at the monthly meeting of the Atlanta Dental Society at the Atlanta Woman's Club. He discussed "The Abolishing of the Private Practice of Medicine and Dentistry" as proposed by the Wagner-Murray Senate Bill 1161.

Dr. and Mrs. Wm. A. Walker, Cairo, observed their golden wedding anniversary in their home on October 19. Hundreds of friends and relatives visited them to extend their hearty felicitations. Dr. Walker graduated from the Louisville Medical College, Louisville, Kentucky, in 1889.

Dr. Herbert F. Readling, Thomasville, has been appointed to the Board of Trustees of the Crippled Children League of Georgia, Inc.

Dr. and Mrs. J. B. Jackson, Clarkesville, entertained members of the Habersham County Medical Society and Auxiliary in their home October 21.

Dr. James E. Paullin, Atlanta, spoke before a meeting of the City Federation of Women's Clubs at the Biltmore Hotel, Atlanta, October 26.

The medical and surgical staff of the Georgia Baptist Hospital met November 16. Dr. Eustace A. Allen led the discussion on a Clinicopathologic Conference and reported a case. Dr. H. H. Askew is secretary of the staff.

The Bibb County Medical Society met at Ridley Hall, Macon, December 7. Officers were elected for the ensuing year.

Dr. Edgar G. Ballenger, Atlanta, was elected president-elect of the Southern Medical Association at its session in Cincinnati, Ohio, November 17.

The names of members of the State Board of Medical Examiners, appointed by Hon. Ellis Arnall, Governor, are as follows:

Dr. L. G. Neal, Cleveland

Dr. J. I. Matthews, Dallas

Dr. R. F. Wheat, Bainbridge

Dr. Murdock Euen, Atlanta

Dr. Steve P. Kenyon, Dawson

Dr. Harold P. McDonald, Atlanta

Dr. J. W. Palmer, Ailey
 Dr. F. H. Clark, Douglas
 Dr. Rufus A. Askew, Atlanta
 Dr. Grady N. Coker, Canton

Dr. Carl C. Aven, Atlanta, was elected second vice-president of the Southern Chapter of the American College of Chest Surgeons at its organization meeting held in Cincinnati, Ohio, November 18.

The Georgia Medical Society, Savannah, met at the society's hall, November 23. Dr. J. K. Quattlebaum conducted a "Surgical Clinic with Presentation of Patients."

The Fulton County Medical Society held its annual meeting and election of officers and delegates at the Academy of Medicine, Atlanta, December 16.

The Fulton County Medical Society will hold its Thirty-Ninth Anniversary Meeting and Banquet at the Piedmont Driving Club, Atlanta, January 6 at 7:00 P.M. Committee on Arrangements are: Doctors Murdock Equen, chairman; Calvin Sandison, C. C. Aven, W. O. Martin, Jr., J. Mason Baird, M. P. Mullen, W. P. Nicolson, Wm. H. Kiser, Jr., B. L. Shackelford, Shelley C. Davis, Wm. A. Smith, Geo. A. Williams, McClaren Johnson, Crawford E. Barnett, L. H. Muse, Fred R. Minnich, E. Van Buren, Sam Perry, Irwin Willingham, Wm. L. Dobes, Champ Holmes, S. A. Kirkland, L. H. Kelley, B. T. Beasley, Chas. G. Boland, Hartwell Boyd, Leon Brawner, Jas. J. Clark, J. R. Childs, Samuel Stamp, Carlton Lee, Luther Vinton, Thos. V. Matthews, W. W. Anderson.

Dr. J. A. Corry, Barnesville, was presented with a "Service Badge" by the Barnesville Chapter of the American Red Cross for his 25 years' service as chairman.

Dr. W. E. Brown, formerly of Homerville, served three years in the Medical Corps of the U. S. Army, ten months of the time stationed in Africa, has opened offices for private practice of medicine at 123 King Street, Dalton.

Dr. Murl M. Hagood, Marietta, has been elected to fellowship in the American College of Surgeons.

Dr. Hal M. Davison, Atlanta, contributed an article entitled "The Present Status of Allergy," which was published in The Bulletin of the Fulton County Medical Society in the December 16 issue. Dr. Geo. W. Fuller wrote the "President's Message," in which he commented on a few of the activities of the members, committees and officers.

The Georgia Medical Society met at its society hall, Savannah, December 14. Officers were elected for the ensuing year and chairmen of committees submitted their annual reports.

The medical and surgical staff of the Georgia Baptist Hospital, Atlanta, met December 21. Dr. C. C. Aven reported a case. A moving picture, "Blood Transfusions," was shown.

The staff of Grady Hospital, Atlanta, met December 14. Dr. Paul Beeson and Dr. Thomas Goodwin were the principal speakers.

MALARIA IN SOUTHWEST PACIFIC

(The following story was written by Staff Sergeant John W. Black, a Marine Corps Combat Correspondent).

SOMEWHERE IN THE SOUTHWEST PACIFIC, (Delayed) — How the bugaboo of malaria virtually has been whipped in this tropic war zone is a story of painstaking attention to detail and of complete cooperation between medical staffs of all branches.

Where sixty per cent of the personnel here used to come down with malaria every month, the figure now has been reduced to five per cent. They've learned now how to prevent the disease and also have developed more effective ways of treating it.

During the Guadalcanal campaign more Marines were lost to the front through malaria than from Jap bullets. Hundreds of these casualties now are being treated at hospitals in the United States and more still are at rest camps and hospitals in the Pacific area.

Members of U. S. Army malaria control units work hand-in-hand with Navy doctors attached to the Marine Corps outfit stationed here. A malaria prevention program which calls for everything from diesel oil and gasoline to vitamin and atabrine tablets is in full swing.

In charge of the non-medical phase of this program is Marine Corporal Salvatore R. Lombardi, 440 East Duval Street, Jacksonville, Fla. In fact, they call Corporal Lombardi the "freedom man." It isn't bonds he sells, but freedom from malaria.

With a spray tank instead of a rifle slung over his shoulder the corporal sallies forth each morning to inspect the bivouac area. Every wheel rut of depression with the smallest amount of stagnant water gets a squirt from his spray. The spray is a mixture of diesel oil and gasoline which forms a film on the water and prevents its use by malaria-bearing mosquitoes for a breeding place.

Larger and more persistent pools of water which do not dry up quickly under the tropic sun, receive microscopic treatment. Lombardi scoops a sample of the water and examines it under a microscope. If the examination shows oil treatment has not done the trick he orders a double dose. Better yet, he rounds up a couple of helpers and fills in the hole.

Next comes an examination of the drainage system around the camp. Any breaks or clogs in the ditches are reported and speedily repaired.

Along about noon the corporal stuffs a couple of bottles of pills in his pockets and makes the rounds. To every hand he doles out a vitamin pill and one of atabrine. He stands by, too, until the pills are swallowed. Then he checks the name of the swallower off a list and proceeds to his next victim.

At night, Corporal Lombardi again makes the rounds to see that the mosquito nets are snug around every cot.

WOMAN'S AUXILIARY

President—Mrs. Olin S. Cofer, 948 Lullwater Road, Atlanta.
 President-Elect—Mrs. W. T. Randolph, Winder.
 First Vice-President—Mrs. Ralph Fowler, Marietta.
 Second Vice-President—Mrs. L. W. Williams, 135 East 45th St., Savannah.
 Third Vice-President—Mrs. Richard Binion, Milledgeville.
 Recording Secretary—Mrs. Chas. Usher, 6 East Liberty St., Savannah.

: OFFICERS 1943-44

Corresponding Secretary—Mrs. H. H. Askew, 1329 Springdale Road, Atlanta.
 Treasurer—Mrs. Lucius N. Todd, Rural Delivery No. 2, Augusta.
 Historian—Mrs. W. W. Puett, Norcross.
 Parliamentarian—Mrs. Lee Howard, 625 East 44th St., Savannah.
 Press and Publicity—Mrs. J. Harry Rogers, 1325 Peachtree St., N.E., Atlanta.

FIRST DISTRICT

Manager, Mrs. W. E. Simmons, Metter, Ga.

**AUXILIARY TO THE GEORGIA MEDICAL SOCIETY
CHATHAM COUNTY—1943—53 MEMBERS**

President, Mrs. R. V. Martin

Broderick, Mrs. J. Reid, 37 E. 49th, Savannah, Ga.
 Barrow, Mrs. Craig, "Wormsloe," Savannah, Ga.
 Cole, Mrs. W. A., 311 W. 40th, Savannah, Ga.
 Chisholm, Mrs. Julian, 201 E. Gaston, Savannah, Ga.
 Demmond, Mrs. E. C., 1001 E. Victory Dr., Savannah, Ga.
 Drane, Mrs. Robert, 204 E. Hall St., Savannah, Ga.
 Daniel, Mrs. John W., Sr., 24 E. 31st St., Savannah, Ga.
 Dancy, Mrs. William R., 408 E. Gaston, Savannah, Ga.
 Exley, Mrs. Howard, 532 E. 41st St., Savannah, Ga.
 Frech, Mrs. H. C., 516 E. 53rd St., Savannah, Ga.
 Faggart, Mrs. George, 18 W. Oglethorpe, Savannah, Ga.
 Holton, Mrs. C. F., 606 E. 45th St., Savannah, Ga.
 Hamm, Mrs. Emerson, 6 Victory Hgts., Savannah, Ga.
 Harris, Mrs. R. V., 19 E. Gordon St., Savannah, Ga.
 Howard, Mrs. Lee, 625 E. 44th St., Savannah, Ga.
 Iseman, Mrs. E., 302 E. 46th St., Savannah, Ga.
 Jones, Mrs. John Paul, 109 E. Jones St., Savannah, Ga.
 Johnson, Mrs. G. H., 116 E. Oglethorpe Ave., Savannah, Ga.
 King, Mrs. Ruskin, 201 E. Hall St., Savannah, Ga.
 Kandel, Mrs. H. M., 432 Abercorn St., Savannah, Ga.
 Lattimore, Mrs. Ralston, 109 E. 52nd St., Savannah, Ga.
 Lang, Mrs. G. H., 2801 Atlantic Ave., Savannah, Ga.
 Levington, Mrs. Henry, 209 E. Gaston, Savannah, Ga.
 Lynn, Mrs. S. C., 508 E. 48th St., Savannah, Ga.
 McGee, Mrs. Harry, 7 West Gordon, Savannah, Ga.
 *Martin, Mrs. R. V., 18 E. 31st St., Savannah, Ga.
 Metts, Mrs. James, Gordonston, Savannah, Ga.
 Morrison, Mrs. A. A., Jr., 108 E. Jones, Savannah, Ga.
 Morrison, Mrs. A. A., Sr., 1702 Bull St., Savannah, Ga.
 Morrison, Mrs. Howard, 102 E. Gaston St., Savannah, Ga.
 Myers, Mrs. William H., 101 E. Jones, Savannah, Ga.
 Maner, Mrs. Edwin, 101 E. 45th St., Savannah, Ga.
 Osborne, Mrs. Elton, 19 E. Jones, Savannah, Ga.
 Olmstead, Mrs. G. T., 333 E. 45th St., Savannah, Ga.
 Oliver, Mrs. R. L., 1133 Washington Ave., Savannah, Ga.
 Porter, Mrs. Ralph Emmett (has moved out of the city).
 Quattlebaum, Mrs. Julian, 203 E. 45th St., Savannah, Ga.
 Redmond, Mrs. C. G., 701 Whitaker St., Savannah, Ga.
 Rubin, Mrs. Jacob (has moved out of the city).
 Righton, Mrs. H. G., 401 East 45th, Savannah, Ga.
 Sanford, Mrs. S. P., 119 E. 53rd St., Savannah, Ga.
 Smith, Mrs. Gregg, 525 E. 59th St., Savannah, Ga.
 Sharpley, Mrs. H. F., 215 Anderson Ave., Gordonston, Savannah, Ga.
 Shaw, Mrs. L. W., 302 Washington Ave., Savannah, Ga.
 Train, Mrs. John, 1111 Bull St., Savannah, Ga.
 Thomas, Mrs. Marion, 825 E. 37th St., Savannah, Ga.
 Usher, Mrs. Charles, 6 E. Liberty, Savannah, Ga.
 Usher, Mrs. J. Arte (has moved out of the city).
 Upson, Mrs. Thomas, 629 Maupas Ave., Savannah, Ga.
 Wilson, Mrs. Elliott, 7 E. Jones St., Savannah, Ga.
 Waring, Mrs. A. J., 2912 Atlantic Ave., Savannah, Ga.

Whelan, Mrs. E. J., 1117 E. 51st, Savannah, Ga.
 Williams, Mrs. L. W., 135 E. 45th St., Savannah, Ga.

BULLOCH-CANDLER-EVANS COUNTIES—1943—9 MEMBERS

President, Mrs. Waldo E. Floyd

Cone, Mrs. R. L., Statesboro, Ga.
 Deal, Mrs. B. A., Statesboro, Ga.
 *Floyd, Mrs. W. E., Statesboro, Ga.
 *Kennedy, Mrs. R. L., Metter, Ga.
 *Kennedy, Mrs. W. D., Metter, Ga.
 McElveen, Mrs. J. M., Brooklet, Ga.
 Mooney, Mrs. A. J., Statesboro, Ga.
 Nevil, Mrs. J. L., Metter, Ga.
 *Simmons, Mrs. W. E., Metter, Ga.
 Stapleton, Mrs. E. C., Statesboro, Ga.

BURKE-JENKINS COUNTIES—1943—10 MEMBERS

Barger, Mrs. Everitt, Waynesboro, Ga.
 Byne, Mrs. J. Miller, Jr., Waynesboro, Ga.
 Hillis, Mrs. Wycliffe W., Sardis, Ga.
 Lee, Mrs. H. Grady, Millen, Ga.
 Lowe, Mrs. William R., Midville, Ga.
 Lundquist, Mrs. W. D., Waynesboro, Ga.
 McCarver, Mrs. William Cullen, Sr., Vidette, Ga.
 Mulkey, Mrs. Arnold Peel, Millen, Ga.
 Mulkey, Mrs. Quinney A., Millen, Ga.
 Thompson, Mrs. Cleveland, Millen, Ga.

SECOND DISTRICT

Manager, Mrs. J. A. Redfearn

COLQUITT COUNTY—1943—8 MEMBERS

President, Mrs. A. G. Funderburke

Brannen, Mrs. C. C., Moultrie, Ga.
 Brannen, Mrs. C. F., Moultrie, Ga.
 Chestnutt, Mrs. T. H., Moultrie, Ga.
 *Funderburk, Mrs. A. G., Moultrie, Ga.
 Joiner, Mrs. R. M., Moultrie, Ga.
 Lanier, Mrs. J. E., Moultrie, Ga.
 McMichael, Mrs. J. R., Quitman, Ga.
 Woodall, Mrs. J. B., Moultrie, Ga.

DOUGHERTY COUNTY—1943—11 MEMBERS

President, Mrs. W. M. Fields

Bacon, Mrs. Albert S., Albany, Ga.
 Barnett, Mrs. J. M., Albany, Ga.
 Cook, Mrs. W. S., Albany, Ga.
 *Field, Mrs. W. M., Albany, Ga.
 Hilsman, Mrs. A. H., Albany, Ga.
 Irvin, Mrs. I. W., Albany, Ga.
 Keaton, Mrs. J. C., Albany, Ga.
 Lucas, Mrs. I. M., Albany, Ga.
 McKemie, Mrs. H. M., Albany, Ga.
 Neill, Mrs. F. K., Albany, Ga.
 *Redfearn, Mrs. J. A., Albany, Ga.

TIFT COUNTY—1943—9 MEMBERS

President, Mrs. W. F. Zimmerman

Andrews, Mrs. Agnew, 1205 Murry Ave., Tifton, Ga.
 Evans, Mrs. E. L., 18th St., Tifton, Ga.
 Harrell, Mrs. D. B., 416 N. Central Ave., Tifton, Ga.
 Hendricks, Mrs. W. H., 412 Love Ave., Tifton, Ga.
 Peterson, Mrs. N., 260 Love Ave., Tifton, Ga.
 Pittman, Mrs. C. S., 211 W. 12th St., Tifton, Ga.
 Smith, Mrs. W. T., 420 N. Park Ave., Tifton, Ga.
 Webb, Mrs. M. L., Box 503, Tifton, Ga.
 *Zimmerman, Mrs. W. F., 617 Wilson Ave., Tifton, Ga.

DECATUR-SEMINOLE COUNTIES—1943—4 MEMBERS

President, Mrs. M. A. Ehrlich

- *Ehrlich, Mrs. M. A., Bainbridge, Ga.
 Chason, Mrs. Gordon, Bainbridge, Ga.
 Wheat, Mrs. R. F., Bainbridge, Ga.
 Willis, Mrs. L. W., Bainbridge, Ga.

THIRD DISTRICT

Manager, Mrs. J. L. Gallemore

DODGE COUNTY—1943—4 MEMBERS

President, Mrs. I. J. Parkerson

- Coleman, Mrs. Warren A., Eastman, Ga.
 *Parkerson, Mrs. I. J., Eastman, Ga.
 Smith, Mrs. E. L., Eastman, Ga.
 Wall, Mrs. J. Cox, Eastman, Ga.

HOUSTON COUNTY—1943—3 MEMBERS

President, Mrs. R. L. Cater

- *Cater, Mrs. R. L., Perry, Ga.
 *Gallemore, Mrs. J. L., Perry, Ga.
 Hendricks, Mrs. A. G., Perry, Ga.

MACON COUNTY—1943—5 MEMBERS

President, Mrs. H. C. Derrick

- Cheves, Mrs. Langdon C., Montezuma, Ga.
 *Derrick, Mrs. Howard C., Oglethorpe, Ga.
 Greer, Mrs. Charles A., Oglethorpe, Ga.
 Liggin, Mrs. Sam B., Montezuma, Ga.
 Savage, Mrs. Carl Preston, Montezuma, Ga.

MUSCOGEE COUNTY—1943—21 MEMBERS

President, Mrs. W. L. Cooke

- Blanchard, Mrs. Mercer, Eberhart Ave., Columbus, Ga.
 Brannon, Mrs. O. C., 1318 Stark Ave., Columbus, Ga.
 Cook, Mrs. W. C., 926 Benning Blvd., Columbus, Ga.
 *Cooke, Mrs. W. L., 2110 Oak Ave., Columbus, Ga.
 Dillard, Mrs. Guy, 1919 Flournoy Dr., Columbus, Ga.
 Gilliam, Mrs. O. D., 1715 Carter Place, Columbus, Ga.
 Jones, Mrs. W. R., 2408 Eighteenth Ave., Columbus, Ga.
 Mayher, Mrs. John, Plumfield, Columbus, Ga.
 Mayher, Mrs. Will E., Dinglewood, Columbus, Ga.
 McDuffie, Mrs. J. H., 1304 East 10th St., Columbus, Ga.
 Murray, Mrs. George, Dinglewood, Columbus, Ga.
 Peacock, Mrs. Clifford, 1266 Cedar Ave., Columbus, Ga.
 Schley, Mrs. Frank, 1352 Peacock Ave., Columbus, Ga.
 Spikes, Mrs. J. L., Peacock Woods, Columbus, Ga.
 Threatte, Mrs. Bruce, 1900 Dimon St., Columbus, Ga.
 Tillery, Mrs. Bert, 1544 Cherokee Ave., Columbus, Ga.
 Venable, Mrs. D. R., 812 Fulton Ave., Columbus, Ga.
 Walker, Mrs. John E., Green Island Hills, Columbus, Ga.
 Willis, Mrs. Neal, 1240 Cedar Ave., Columbus, Ga.
 Winn, Mrs. John, 3 Park Drive, Columbus, Ga.
 Youmans, Mrs. J. R., 1600 Boulevard St., Columbus, Ga.

RANDOLPH-TERRELL COUNTIES—1943—13 MEMBERS

President, Mrs. L. R. Massengale

- Arnold, Mrs. J. T., Parrott, Ga.
 Crook, Mrs. W. W., Cuthbert, Ga.
 Elliott, Mrs. W. C., Cuthbert, Ga.
 Gary, Mrs. Loren, Sr., Georgetown, Ga.
 Harper, Mrs. T. F., Coleman, Ga.
 Ingram, Mrs. H. R., Coleman, Ga.
 Martin, Mrs. F. M., Shellman, Ga.
 *Massengale, Mrs. L. R., Lumpkin, Ga.
 McCurdy, Mrs. E. C., Shellman, Ga.
 Patterson, Mrs. J. C., Cuthbert, Ga.
 Rogers, Mrs. F. S., Coleman, Ga.
 Sims, Mrs. C. R., Richland, Ga.
 Tidmore, Mrs. J. C., Dawson, Ga.

SUMTER COUNTY—1943—6 MEMBERS

President, Mrs. Russell Thomas

- Adkins, Mrs. H. T., 1103 Hancock Dr., Americus, Ga.
 Gatewood, Mrs. Schley, Hancock Dr., Americus, Ga.
 Primrose, Mrs. A. C., 801 Hancock Dr., Americus, Ga.
 Scruggs, Mrs. S. A., 813 Hancock Dr., Americus, Ga.
 Smith, Mrs. Herschel, 601 So. Lee St., Americus, Ga.
 *Thomas, Mrs. Russell, 140 Taylor St., Americus, Ga.

FOURTH DISTRICT

Manager, None

LAMAR COUNTY—1943—6 MEMBERS

President, Mrs. J. H. Jackson

- Corry, Mrs. J. A., Holmes St., Barnesville, Ga.
 *Jackson, Mrs. J. H., Georgia Ave., Barnesville, Ga.
 Pritchett, Mrs. D. W., Thomaston St., Barnesville, Ga.
 Suggs, Mrs. C. E., Greenwood St., Barnesville, Ga.
 Traylor, Mrs. S. B., Stafford Ave., Barnesville, Ga.
 Willis, Mrs. C. H., Thomaston St., Barnesville, Ga.

FIFTH DISTRICT

Manager, Mrs. Shelley C. Davis

FULTON COUNTY—1943—190 MEMBERS

President, Mrs. Harry Rogers

- Agnor, Mrs. Elbert B., 1302 N. Morningside Dr., N. E., Atlanta.
 Allen, Mrs. Eustace A., 18 Collier Rd., N. W., Atlanta.
 Anderson, Mrs. W. W., 63 Avery Dr., N. E., Atlanta.
 Askew, Mrs. Hulett H., 1329 Springdale Rd., N. E., Atlanta.
 Ayer, Mrs. Guy D., 563 Paces Ferry Rd., N. W., Atlanta.
 Baggett, Mrs. Leland, 79 Brighton Rd., N. W., Atlanta.
 Baker, Mrs. Luther P., 52 Seventeenth St., N. E., Atlanta.
 Ballenger, Mrs. W. L., 42 Rumson Way, N. E., Atlanta.
 Bancker, Mrs. Evert A., 3310 Club Dr., N. E., Atlanta.
 Barfield, Mrs. J. R., 592 Clifton Rd., N. E., Atlanta.
 Barnett, Mrs. Crawford F., 2629 Rivers Rd., N. W., Atlanta.
 Barnett, Mrs. Stephen T., 1746 Pine Ridge Dr., N. E., Atlanta.
 Benson, Mrs. Marion T., 1040 Springdale Rd., N. E., Atlanta.
 Bivings, Mrs. F. Lee, 3110 Habersham Rd., N. W., Atlanta.
 Bivings, Mrs. Wm. Troy, Jr., 1860 Flagler Ave., N. E., Atlanta.
 Blackman, Mrs. W. W., 248 Andrews Dr., N. W., Atlanta.
 Blalock, Mrs. Frank A., 150 Anderson Ave., S. W., Atlanta.
 Boland, Mrs. Chas. G., 125 Rumson Rd., N. E., Atlanta.
 Boland, Mrs. Frank K., 252 Peachtree Cir., N. E., Atlanta.
 Bowcock, Mrs. Chas. M., 786 W. Wesley Rd., N. W., Atlanta.
 Brawner, Mrs. A. F., Smyrna, Ga.
 Brawner, Mrs. Jas. N., Sr., 2800 Peachtree Rd., N. W., Atlanta.
 Brawner, Mrs. Jas. N., Jr., 192 Bowling Rd., N. E., Atlanta.
 Bridges, Mrs. Glenn J., 2163 East Lake Rd., N. E., Atlanta.
 Brown, Mrs. Stephen T., 1038 Oxford Rd., N. E., Atlanta.
 Bunce, Mrs. Allen H., 368 Ponce de Leon Ave., N. E., Atlanta.
 Burch, Mrs. J. C., 150 Anderson Ave., S. W., Atlanta.
 Burgess, Mrs. Taylor S., 40 Woodcrest Ave., N. W., Atlanta.
 Bush, Mrs. O. B., 774 W. Wesley Rd., N. W., Atlanta.
 Byrd, Mrs. Luther, 1752 N. Pelham Rd., N. E., Atlanta.
 Calhoun, Mrs. F. Phinizy, 2906 Andrews Dr., N. W., Atlanta.
 Callahan, Mrs. Alston, 2415 Woodward Way, N. W., Atlanta.
 Campbell, Mrs. J. L., 1315 Fairview Rd., N. E., Atlanta.
 Candler, Mrs. Robert W., 2498 Mountview Dr., N. W., Atlanta.
 Carothers, Mrs. J. L., 165 Lakeview Ave., N. E., Atlanta.
 Cathcart, Mrs. Don F., 1720 Flagler Ave., N. E., Atlanta.
 Childs, Mrs. J. R., 1965 Ponce de Leon Ave., N. E., Atlanta.
 Clark, Mrs. James J., 1081 Springdale Road, N. E., Atlanta.
 Cofer, Mrs. Olin S., 948 Lullwater Rd., N. E., Atlanta.
 Collier, Mrs. Thos. J., 1781 Peachtree St., N. E., Atlanta.
 Colvin, Mrs. Ernest S., 158 Rumson Rd., N. E., Atlanta.

- Cooke, Mrs. Virgil C., Bakers Ferry Rd., S. W., Atlanta.
 Coppedge, Mrs. Wm. W., 313 Kimmeridge Rd., East Point, Ga.
 Cousins, Mrs. W. L., Clarkston, Ga.
 Crawford, Mrs. Herschel C., 3000 E. Pine Valley Rd., N. W., Atlanta.
 Cross, Mrs. John B., 2606 Dellwood Dr., N. W., Atlanta.
 Crowe, Mrs. W. R., 1069 Virginia Ave., N. E., Atlanta.
 Curtis, Mrs. Walker, 302 W. Rugby Ave., College Park, Ga.
 Daly, Mrs. Leo P., 360 Ponce de Leon Ave., N. E., Atlanta.
 Daniel, Mrs. Chas. H., College Park, Ga.
 Daniel, Mrs. Eugene, 230 Howard St., N. E., Atlanta.
 Davenport, Mrs. T. F., 1038 Peachtree Battle Ave., N. W., Atlanta.
 *Davis, Mrs. Shelley C., 1259 Peachtree St., Atlanta.
 Davison, Mrs. Hal M., 85 Avery Dr., N. E., Atlanta.
 Denton, Mrs. John F., 1503 Peachtree St., N. E., Atlanta.
 Dew, Mrs. J. Harris, 4114 Peachtree Dunwoody Rd., N. E., Atlanta.
 Dickson, Mrs. Roger W., 28 Collier Rd., N. W., Atlanta.
 Dobes, Mrs. Wm. L., 835 Penn Ave., N. E., Atlanta.
 Dougherty, Mrs. Mark S., 76 Brighton Rd., N. W., Atlanta.
 Dowman, Mrs. Chas., Sr., 630 Linwood Ave., N. E., Atlanta.
 Duncan, Mrs. John B., West Paces Ferry Rd., N. W., Atlanta.
 Dunn, Mrs. Wm. M., 2801 Andrews Dr., N. W., Atlanta.
 DuVall, Mrs. W. Beecher, 905 Cascade Rd., S. W., Atlanta.
 Edgerton, Mrs. M. T., 788 Penn Ave., N. E., Atlanta.
 Elder, Mrs. Omar F., 65 Muscogee Ave., N. W., Atlanta.
 Equen, Mrs. Murdock, 2505 Habersham Rd., N. W., Atlanta.
 Eskey, Mrs. Clifford, 1760 Peachtree St., N. W., Atlanta.
 Estes, Mrs. H. Grady, 1166 Lullwater Rd., N. E., Atlanta.
 Eubanks, Mrs. Geo. F., 2888 Habersham Rd., N. W., Atlanta.
 Felber, Mrs. Ernest, 8 Twenty-eighth St., N. W., Atlanta.
 Fischer, Mrs. L. C., Chamblee, Ga.
 Fitts, Mrs. John B., 739 Penn Ave., N. E., Atlanta.
 Fort, Mrs. Chester A., Jr., 1100 Piedmont Ave., N. E., Atlanta.
 Foster, Mrs. Kimsey E., College Park, Ga.
 Fuller, Mrs. Geo. W., 1384 Fairview Rd., N. E., Atlanta.
 Funke, Mrs. John, 343 Fourth St., N. E., Atlanta.
 Funkhouser, Mrs. W. L., 2419 Woodward Way, N. W., Atlanta.
 Gay, Mrs. J. Gaston, 2594 Howell Mill Rd., N. W., Atlanta.
 Gay, Mrs. T. Bolling, 76 Montgomery Ferry Dr., N. E., Atlanta.
 Glenn, Mrs. Wadley, 4491 Jett Rd., N. W., Atlanta.
 Goodwyn, Mrs. Thos. P., 2480 Woodward Way, N. W., Atlanta.
 Green, Mrs. Samuel, 701 Park Dr., N. E., Atlanta.
 Greene, Mrs. Edgar H., 1442 W. Wesley Rd., N. W., Atlanta.
 Halpin, Mrs. Lawrence, 7 Pine Circle, N. E., Atlanta.
 Hamff, Mrs. L. Harvey, 906 Briarcliff Rd., N. E., Atlanta.
 Harrison, Mrs. M. T., 1096 E. Clifton Rd., N. E., Atlanta.
 Hewell, Mrs. Guy C., 1123 Berkshire Rd., N. E., Atlanta.
 Heyser, Mrs. D. T., 1099 Virginia Ave., N. E., Atlanta.
 Hodgson, Mrs. Fred G., 851 Clifton Rd., N. E., Atlanta.
 Holden, Mrs. F. C., 1256 N. Morningside Dr., N. E., Atlanta.
 Hope, Mrs. H. F., 3193 Roswell Rd., N. W., Atlanta.
 Horton, Mrs. B. E., 1150 North Ave., N. E., Atlanta.
 Howard, Mrs. Chas. K., 761 Kennolia Dr., S. W., Atlanta.
 Howell, Mrs. Stacy C., 2641 Acorn Ave., N. E., Atlanta.
 Johnson, Mrs. McClaren, 23 Collier Rd., N. W., Atlanta.
 Jones, Mrs. Jack W., West Paces Ferry Rd., N. W., Atlanta.
 Kelley, Mrs. L. H., 952 Rosedale Rd., N. E., Atlanta.
 Kelley, Mrs. W. A., New Buford Hgy., N. E., Atlanta.
 Kemper, Mrs. Clifton G., 1711 Homestead Ave., N. E., Atlanta.
 Kirkland, Mrs. Spencer A., 106 Peachtree Battle Ave., N. W., Atlanta.
 Kracke, Mrs. Roy R., 441 Clairmont Ave., Decatur, Ga.
 Kraft, Mrs. Harry N., 455 Collier Rd., N. W., Atlanta.
 Landham, Mrs. J. W., 4199 Club Dr., N. E., Atlanta.
 Lange, Mrs. J. Harry, 2870 Arden Rd., N. W., Atlanta.
 Laws, Mrs. Clarence L., 3209 Habersham Rd., N. W., Atlanta.
 Letton, Mrs. A. H., Georgia Baptist Hospital, Atlanta.
 Levin, Mrs. Harold B., 745 Boulevard, N. E., Atlanta.
 Lihnott, Mrs. H. J., 3575 N. Stratford Rd., N. E., Atlanta.
 Linch, Mrs. A. O., 943 Rosedale Rd., N. E., Atlanta.
 Logue, Mrs. R. Bruce, 145 Westminster Dr., N. E., Atlanta.
 Lokey, Mrs. Hugh M., Sr., 256 Fourteenth St., N. E., Atlanta.
 Longino, Mrs. D. R., 1344 Lanier Blvd., N. E., Atlanta.
 Lowance, Mrs. Mason I., 877 W. Wesley Rd., N. W., Atlanta.
 Lower, Mrs. Emory G., 619 Myrtle St., N. E., Atlanta.
 Lunsford, Mrs. Guy G., 1154 Virginia Ave., N. E., Atlanta.
 Major, Mrs. Robert C., 165 Avery Dr., N. E., Atlanta.
 Malone, Mrs. O. T., 379 Collier Rd., N. W., Atlanta.
 Martin, Mrs. J. D., Jr., 485 Clair Dr., N. E., Atlanta.
 Mashburn, Mrs. Chas. M., La Vista Rd., N. E., Atlanta.
 Matthews, Mrs. O. H., 61 Barksdale Dr., N. E., Atlanta.
 Maulding, Mrs. Homer R., Nelson Ferry Rd., Decatur, Ga.
 McCay, Mrs. C. G., 721 Clairmont Rd., Decatur, Ga.
 McDougall, Mrs. Calhoun, 2899 Andrews Dr., N. W., Atlanta.
 McDougall, Mrs. Wm. L., 275 Blackland Rd., N. W., Atlanta.
 McLoughlin, Mrs. C. J., 2222 Peachtree Rd., N. W., Atlanta.
 Merrill, Mrs. Arthur J., 3555 Nancy's Creek Rd., N. W., Atlanta.
 Mestre, Mrs. Ricardo, 581 Martina Dr., N. E., Atlanta.
 Minnich, Mrs. Fred R., 1140 West Paces Ferry Rd., N. W., Atlanta.
 Minor, Mrs. Henry W., 4455 Peachtree Dunwoody Rd., N. W., Atlanta.
 Mitchell, Mrs. Marvin, 505 Manor Ridge Dr., N. W., Atlanta.
 Monfort, Mrs. J. M., 3870 Club Dr., N. E., Atlanta.
 Morris, Mrs. S. L., Jr., 818 E. Morningside Dr. N. E., Atlanta.
 Mullen, Mrs. Malcolm P., 892 Rosedale Rd., N. E., Atlanta.
 Nall, Mrs. J. D., 1029 Rosedale Rd., N. E., Atlanta.
 Neel, Mrs. Malcolm, 668 Cooledge Ave., N. E., Atlanta.
 Newberry, Mrs. R. E., 2160 Ponce de Leon Ave., N. E., Atlanta.
 Norris, Mrs. Jack C., 511 Peachtree Battle Ave., N. W., Atlanta.
 Paullin, Mrs. Jas. E., 2834 Andrews Dr., N. W., Atlanta.
 Pentecost, Mrs. Mark P., 3081 W. Pine Valley Rd., N. W., Atlanta.
 Pinson, Mrs. C. H., Hapeville, Ga.
 Powell, Mrs. Vernon E., 10 Vernon Rd., N. W., Atlanta.
 Pruitt, Mrs. Marion C., Briarcliff Rd., N. E., Atlanta.
 Quillian, Mrs. W. Earl, 986 Ponce de Leon Ave., N. E., Atlanta.
 Read, Mrs. Ben, 993 Stovall Blvd., N. E., Atlanta.
 Read, Mrs. Joseph C., 3970 Vermont Rd., N. E., Atlanta.
 Reed, Mrs. Clinton C., Henry Grady Hotel, Atlanta.
 Rieser, Mrs. Charles, 1633 Paces Ferry Rd., N. W., Atlanta.
 Rhodes, Mrs. C. A., 129 Brighton Rd., N. W., Atlanta.
 Richardson, Mrs. Jeff, 969 Clifton Rd., N. E., Atlanta.
 Ridley, Mrs. Harry W., 1055 Rosedale Dr., N. E., Atlanta.

Roberts, Mrs. C. W., 1085 St. Charles Pl., N. E., Atlanta.
 Roberts, Mrs. M. Hines, 393 W. Wesley Rd., N. W., Atlanta.
 Robinson, Mrs. Lisle B., 57 Northwood Ave., N. W., Atlanta.
 *Rogers, Mrs. Harry, 134 Huntington Rd., N. W., Atlanta.
 Rouglin, Mrs. L. C., 1050 Ponce de Leon Ave., N. E., Atlanta.
 Rudder, Mrs. Fred F., 797 St. Charles Ave., N. E., Atlanta.
 Rushin, Mrs. Chas. E., 50 Camden Rd., N. W., Atlanta.
 Sage, Mrs. Dan Y., 47 Inman Circle, N. E., Atlanta.
 Sanders, Mrs. A. S., 1660 N. Emory Rd., N. E., Atlanta.
 Sauls, Mrs. H. Cliff, 2887 Howell Mill Rd., N. W., Atlanta.
 Schillinger, Mrs. E. N., 5998 Peachtree Rd., N. E., Atlanta.
 Selman, Mrs. W. A., 760 Penn Ave., N. E., Atlanta.
 Shackelford, Mrs. B. L., 2665 Arden Rd., N. W., Atlanta.
 Shallenberger, Mrs. W. F., 104 Westminster Dr., N. E., Atlanta.
 Shanks, Mrs. Edgar D., 1431 Fairview Rd., N. E., Atlanta.
 Skobba, Mrs. J. S., 25 Sheridan Dr., N. E., Atlanta.
 Smith, Mrs. Carter, 450 W. Wesley Rd., N. W., Atlanta.
 Smith, Mrs. Linton, 365 Mayson Ave., N. E., Atlanta.
 Smith, Mrs. Randolph, 37 LaFayette Dr., N. E., Atlanta.
 Smith, Mrs. Simon H., 1291 Emory Rd., N. E., Atlanta.
 Smith, Mrs. W. A., 2956 Lenox Rd., N. E., Atlanta.
 Spearman, Mrs. G. F., 190 The Prado, N. E., Atlanta.
 Stewart, Mrs. Calvin B., 904 Peachtree St., N. E., Atlanta.
 Swanson, Mrs. Cosby, 10 Cherokee Rd., N. W., Atlanta.
 Tidmore, Mrs. T. L., 963 Plymouth Rd., N. E., Atlanta.
 Turk, Mrs. L. N., Jr., 1516 N. Morningside Dr., N. E., Atlanta.
 Turner, Mrs. John W., 157 Seventeenth St., N. E., Atlanta.
 Upchurch, Mrs. W. E., 2774 Atwood Rd., N. E., Atlanta.
 Vinson, Mrs. C. D., 72 Anniston Ave., S. E., Atlanta.
 Vorisek, Mrs. Elmer A., 8 E. Shadowlawn Ave., N. E., Atlanta.
 Ward, Mrs. Chas. S., 983 Rosedale Rd., N. E., Atlanta.
 Warren, Mrs. Wm., Jr., 980 Briarcliff Rd., N. E., Atlanta.
 Waters, Mrs. W. C., 878 Virginia Ave., N. E., Atlanta.
 Whipple, Mrs. Robert L., 225 Huntington Rd., N. W., Atlanta.
 Williams, Mrs. Geo. A., 135 Montgomery Ferry Dr., N. E., Atlanta.
 Williams, Mrs. L. L., Jr., 2600 Dellwood Dr., N. W., Atlanta.
 Willingham, Mrs. T. I., 20 Highland Dr., N. E., Atlanta.
 Wood, Mrs. R. Hugh, 1657 Harvard Rd., N. E., Atlanta.
 Wright, Mrs. Edward S., 2865 Howell Mill Rd., N. W., Atlanta.
 Yampolsky, Mrs. Jos., 746 Brookridge Dr., N. E., Atlanta.

SIXTH DISTRICT

Manager, Mrs. J. B. Dillard

BALDWIN COUNTY—1943—22 MEMBERS

President, Mrs. Sam A. Anderson

Allen, Mrs. Dawson, Allen's Invalid Home, Milledgeville, Ga.
 Allen, Mrs. Edwin, Allen's Invalid Home, Milledgeville, Ga.
 *Anderson, Mrs. S. A., State Hospital, Milledgeville, Ga.
 Bailey, Mrs. L. A., 606 N. Columbia, Milledgeville, Ga.
 Binion, Mrs. Richard, 310 W. Green, Milledgeville, Ga.
 Bostick, Mrs. W. A., State Hospital, Milledgeville, Ga.
 Bradley, Mrs. J. D., State Hospital, Milledgeville, Ga.
 Cary, Mrs. H. R., N. Jefferson, Milledgeville, Ga.
 Clodfelter, Mrs. T. C., State Hospital, Milledgeville, Ga.
 Echols, Mrs. G. L., State Hospital, Milledgeville, Ga.
 Fulghum, Mrs. C. B., N. Jefferson, Milledgeville, Ga.
 Garrard, Mrs. J. I., State Hospital, Milledgeville, Ga.

Longino, Mrs. L. P., State Hospital, Milledgeville, Ga.
 Olnick, Mrs. H. M., Hancock St., Milledgeville, Ga.
 Richardson, Mrs. C. H., N. Columbia, Milledgeville, Ga.
 Schwall, Mrs. E. W., State Hospital, Milledgeville, Ga.
 Sikes, Mrs. Z. S., State Hospital, Milledgeville, Ga.
 Walker, Mrs. E. Y., N. Columbia, Milledgeville, Ga.
 Walker, Mrs. N. P. W. Green, Milledgeville, Ga.
 Wiley, Mrs. J. D., State Hospital, Milledgeville, Ga.
 Woods, Mrs. O. C., N. Jefferson, Milledgeville, Ga.
 Yarbrough, Mrs. Y. H., State Hospital, Milledgeville, Ga.

BIBB COUNTY—1943—41 MEMBERS

President, Mrs. C. C. Harrold

Aldrich, Mrs. F. N., Shirley Hills, Macon, Ga.
 Anderson, Mrs. Carl L., 280 College St., Macon, Ga.
 Anderson, Mrs. J. C., 106 Stanislaus Cir., Macon, Ga.
 Applewhite, Mrs. J. D., 565 College St., Macon, Ga.
 Atkinson, Mrs. Harrold, 206 Corbin Ave., Macon, Ga.
 Bashinski, Mrs. Benjamin, 120 Buford Pl., Macon, Ga.
 Baxley, Mrs. W. W., 219 Buford Pl., Macon, Ga.
 Bazemore, Mrs. Wallace, 127 Beverly Pl., Macon, Ga.
 Chrisman, Mrs. W. W., 112 Corbin Ave., Macon, Ga.
 Clay, Mrs. Emory, 364 Cherokee Ave., Macon, Ga.
 Corn, Mrs. Ernst, 555 College St., Macon, Ga.
 Farmer, Mrs. Hall, 118 Pio Nona Ave., Macon, Ga.
 Fountain, Mrs. James, Shirley Hills, Macon, Ga.
 Golson, Mrs. Willard, Box 777, Ft. Bragg, N. C.
 *Harrold, Mrs. Charles, 550 Orange St., Macon, Ga.
 Harrold, Mrs. Thomas, Jr., 567 College St., Macon, Ga.
 Hinton, Mrs. C. C., 2514 Forsyth Rd., Macon, Ga.
 Henderson, Mrs. D. T., Vineville Court, Macon, Ga.
 Holmes, Mrs. J. P., 252 Overlook Ave., Macon, Ga.
 Keen, Mrs. O. F., 117 Rogers Ave., Macon, Ga.
 King, Mrs. J. L., 223 Buford Pl., Macon, Ga.
 Mass, Mrs. Max, 1004 Vineville Ave., Macon, Ga.
 McAllister, Mrs. R. W., 922 Ingleside Ave., Macon, Ga.
 McLoughlin, Mrs. Charles, 921 Ingleside Ave., Macon, Ga.
 Mobley, Mrs. Walter, 563 College St., Macon, Ga.
 Newman, Mrs. W. A., 571 Orange St., Macon, Ga.
 Newton, Mrs. Ralph, 217 Buford Place, Macon, Ga.
 Patton, Mrs. Sam, 132 Beverly Place, Macon, Ga.
 Phillips, Mrs. A. M., 109 Buford Place, Macon, Ga.
 Rawls, Mrs. Lewis, 122 Summit Ave., Macon, Ga.
 Richardson, Mrs. Rhea, 2516 Forsyth Rd., Macon, Ga.
 Richardson, Mrs. C. H., 359 Cherokee Ave., Macon, Ga.
 Rogers, Mrs. T. E., 120 Clisby Place, Macon, Ga.
 Rozar, Mrs. A. R., Shirley Hills, Macon, Ga.
 Smith, Mrs. Allen, 106 Florida Ave., Macon, Ga.
 Thompson, Mrs. A. R., 110 Pio Nona Ave., Macon, Ga.
 Ware, Mrs. Ford, 123 Inverness Ave., Macon, Ga.
 Weaver, Mrs. H. G., 120 Calloway, Macon, Ga.
 Weaver, Mrs. O. H., 702 Ridge Ave., Macon, Ga.
 Williams, Mrs. W. A., 204 Stanislaus Cir., Macon, Ga.
 Woods, Mrs. C. J., 179 North Ave., Macon, Ga.

WASHINGTON COUNTY—1943—12 MEMBERS

President, Mrs. J. B. Dillard

*Dillard, Mrs. J. B., Davisboro, Ga.
 Harris, Mrs. E. A., Sandersville, Ga.
 Helton, Mrs. B. L., Sandersville, Ga.
 King, Mrs. W. R., Tonnille, Ga.
 Lennard, Mrs. O. D., Tonnille, Ga.
 Newsome, Mrs. Emory G., Sandersville, Ga.
 Newsom, Mrs. N. J., Sandersville, Ga.
 Overby, Mrs. N., Sandersville, Ga.
 Peacock, Mrs. E. S., Sandersville, Ga.
 Rawlings, Mrs. F. B., Sandersville, Ga.
 Rogers, Mrs. O. L., Sandersville, Ga.
 Taylor, Mrs. R. L., Davisboro, Ga.

SEVENTH DISTRICT

Manager, Mrs. J. E. Billings

COBB COUNTY—1943—15 MEMBERS

President, Mrs. G. O. Allen

*Allen, Mrs. G. O., 1005 Cherokee St., Marietta, Ga.
 Benson, Mrs. Regina Rambo, 408 Whitlock Avenue, Marietta, Ga.

Davis, Mrs. E. S., Acworth, Ga.
 Elder, Mrs. C. D., 200 Seminole Dr., Marietta, Ga.
 Fowler, Mrs. Herbert, 1110 Cherokee St., Marietta, Ga.
 Fowler, Mrs. Ralph W., 303 McDonald St., Marietta, Ga.
 Gober, Mrs. William Mayes, 1109 Powder Springs, Marietta, Ga.
 Griffin, Mrs. R. B., 504 Church St., Marietta, Ga.
 Hagood, Mrs. Murl Miller, 826 Whitlock Ave., Marietta, Ga.
 Hagood, Mrs. George Felton, 710 Church St., Marietta, Ga.
 Lindley, Mrs. L. P., Powder Springs, Ga.
 McCall, Mrs. Moses N., Seminole Dr., Acworth, Ga.
 Mitchell, Mrs. William C., Smyrna, Ga.
 Perkinson, Mrs. W. H., 819 Church St., Marietta, Ga.
 Welch, Mrs. L. L., 1011 Church St., Marietta, Ga.

GORDON COUNTY—1943—5 MEMBERS
 President, Mrs. Z. V. Johnston

*Billings, Mrs. Jordan Eli, Calhoun, Ga.
 Hall, Mrs. Wilbur Dallas, Calhoun, Ga.
 *Johnston, Mrs. Zebulon Vance, Calhoun, Ga.
 Parham, Mrs. John B., Adairsville, Ga.
 Walter, Mrs. Robert Daniel, Calhoun, Ga.

EIGHTH DISTRICT

Manager, Mrs. Tom V. Willis

WARE COUNTY—1943—21 MEMBERS
 President, Mrs. W. M. Flanagan

Bradley, Mrs. D. M., 629 Nichols St., Waycross, Ga.
 Bussell, Mrs. B. R., Euclid Ave., Waycross, Ga.
 DeLoach, Mrs. A. W., Cherokee Dr., Waycross, Ga.
 *Flanagan, Mrs. W. M., 410 Remshart, Waycross, Ga.
 Folks, Mrs. W. M., Cherokee Drive, Waycross, Ga.
 Hafford, Mrs. W. C., 229 Riverside Dr., Waycross, Ga.
 Johnson, Mrs. R. L., 509 Nichols St., Waycross, Ga.
 McCullough, Mrs. K., Satilla Blvd., Waycross, Ga.
 Minchew, Mrs. B. H., 412 William St., Waycross, Ga.
 Penland, Mrs. J. E., 912 Elizabeth St., Waycross, Ga.
 Reavis, Mrs. W. F., Satilla Blvd., Waycross, Ga.
 Stephens, Mrs. C. M., 312 Hill St., Waycross, Ga.
 Stoner, Mrs. W. P., 707 Haynes Ave., Waycross, Ga.
 Walden, Mrs. K. C., Cherokee Drive, Waycross, Ga.
 Whitmer, Mrs. C. A., 501 Gilmore St., Waycross, Ga.

Wives of Doctors in Army

Collins, Mrs. B.	Pomeroy, Mrs. W. L.
Ferrell, Mrs. T. J.	Seaman, Mrs. H. A.
Pierce, Mrs. L. W.	Smith, Mrs. Leo

NINTH DISTRICT

Manager, Mrs. Stephen Theo Ross

BARROW COUNTY—1943—6 MEMBERS
 President, Mrs. Charles B. Almand

*Almand, Mrs. Charles B., Candler St., Winder, Ga.
 Harris, Mrs. Ernest R., Winder, Ga.
 Mathews, Mrs. William Lester, Athens St., Winder, Ga.
 McDonald, Mrs. Edward M., Athens St., Winder, Ga.
 Randolph, Mrs. William Tandy, Athens St., Winder, Ga.
 *Ross, Mrs. Stephen Theo, Candler St., Winder, Ga.

CHEROKEE-PICKENS COUNTIES—1943—10 MEMBERS
 President, Mrs. Newton J. Coker

Boring, Mrs. J. R., Cherokee County, Canton, Ga.
 Brooke, Mrs. Geo. C., Cherokee County, Canton, Ga.
 Coker, Mrs. Grady N., Cherokee County, Canton, Ga.
 *Coker, Mrs. Newton J., Cherokee County, Canton, Ga.
 *Coker, Mrs. Newton J., Cherokee County, Canton, Ga.
 Pettit, Mrs. J. T., Cherokee County, Canton, Ga.
 Roper, Mrs. C. J., Pickens County, Jasper, Ga.
 Turk, Mrs. Jno. Pierce, Pickens County, Nelson, Ga.
 Vansant, Mrs. T. J., Cherokee County, Woodstock, Ga.
 Whitfield, Mrs. Truman, Pickens County, Tate, Ga.

GWINNETT COUNTY—1943—5 MEMBERS
 President, Mrs. C. D. Kelley

Hinton, Mrs. W. T., Dacula, Ga.

Hutchins, Mrs. William J., Buford, Ga.
 *Kelley, Mrs. D. C., Lawrenceville, Ga.
 Puett, Mrs. W. W., Norcross, Ga.
 Williams, Mrs. A. D., Lawrenceville, Ga.

HABERSHAM COUNTY—1943—8 MEMBERS

President, Mrs. D. H. Garrison
 Brabson, Mrs. Thomas H., Cornelia, Ga.
 Carter, Mrs. D. Earl, Cornelia, Ga.
 Crow, Mrs. Horace E., Alto, Ga.
 *Garrison, Mrs. Daniel H., Clarksville, Ga.
 Harden, Mrs. Otho N., Cornelia, Ga.
 Hardman, Mrs. Charles T., Tugalo, Ga.
 Jackson, Mrs. James B., Clarksville, Ga.
 Lamb, Mrs. Erford H., Cornelia, Ga.

JACKSON COUNTY—1943—3 MEMBERS

President, Mrs. M. B. Allen
 *Allen, Mrs. M. B., Hoschton, Ga.
 Allen, Mrs. L. C., Hoschton, Ga.
 Freeman, Mrs. Ralph, Sr., Hoschton, Ga.

STEPHENS COUNTY—1943—7 MEMBERS

President, Mrs. W. B. Heller
 Ayers, Mrs. C. L., 316 Doyle St., Toccoa, Ga.
 Bryan, Mrs. N. A., Savannah St., Toccoa, Ga.
 Chaffin, Mrs. E. F., 743 Tugalo St., Toccoa, Ga.
 *Heller, Mrs. W. B., 919 Tugalo St., Toccoa, Ga.
 Isbell, Mrs. J. E. D., 95 Tugalo St., Toccoa, Ga.
 Sapp, Mrs. Clarence, Toccoa, Ga.
 Schaeffer, Mrs. W. B., Franklin St., Toccoa, Ga.

TENTH DISTRICT

CLARKE COUNTY—1943—9 MEMBERS

President, Mrs. H. W. Birdsong
 Banister, Mrs. H. G., Ila, Ga.
 *Birdsong, Mrs. H. W., Athens, Ga.
 Brown, Mrs. Stewart D., Royston, Ga.
 Cabaniss, Mrs. Harvey, Athens, Ga.
 Goss, Mrs. R. M., Athens, Ga.
 Lancey, Mrs. C. S., Athens, Ga.
 Loden, Mrs. G. L., Atlanta, Ga.?
 Simpson, Mrs. John A., Athens, Ga.
 Whitley, Mrs. L. L., Crawford, Ga.

RICHMOND COUNTY—1943—39 MEMBERS

President, Mrs. Robert E. Leonard
 Akerman, Mrs. Joseph, 831 Fifteenth St., Augusta, Ga.
 Allen, Mrs. Lane, Minneota, RFD No. 3, No., Augusta, Ga.
 *Battey, Mrs. W. W., Sr., 826 Hickman Rd., Augusta, Ga.
 Battey, Mrs. W. W., Jr., 2239 Kings Way, Augusta, Ga.
 Bedingfield, Mrs. Wade R., 1134 Monte Sano Ave., Augusta, Ga.
 Bernard, Mrs. Guy T., 951 Meigs St., Augusta, Ga.
 Briggs, Mrs. Alfred P., Colonial Court Apts, Augusta, Ga.
 Burpee, Mrs. Claude M., 1127 Monte Sano Ave., Augusta, Ga.
 Chaney, Mrs. Ralph H., Bransford Rd., F. Hills, Augusta, Ga.
 Harper, Mrs. Harry T., 2739 Walton Way, Augusta, Ga.
 Harrison, Mrs. F. N., Milledgeville Rd., Augusta, Ga.
 Hitchcock, Mrs. J. Phinizy, 346 Greene St., Augusta, Ga.
 Kelly, Mrs. G. Lombard, 2131 Gardner St., Augusta, Ga.
 Lee, Mrs. F. Lansing, 901 Heard Ave., Augusta, Ga.
 *Leonard, Mrs. Robt. E., Lake Forest Dr., F. Hills, Augusta, Ga.
 Matthews, Mrs. W. Eugene, 2735 Walton Way, Augusta, Ga.
 McDaniel, Mrs. J. Z., Warrenton, Ga.
 McGahee, Mrs. Robt. C., 2817 Hillcrest Ave., Augusta, Ga.
 Milligan, Mrs. King W., 942 Greene St., Augusat, Ga.
 Mulherin, Mrs. Chas. M., 119 W. Rosewood, San Antonio, Texas.
 Philpot, Mrs. Wm. K., 2423 Kings Way, Augusta, Ga.

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MEDICAL ASSOCIATION OF GEORGIA

Ninety-Fifth Annual Session

Savannah

May 9, 10, 11, 12, 1944

OFFICERS AND COMMITTEES, 1943-1944

Officers

President.....	W. A. Selman, Atlanta
President-Elect.....	Cleveland Thompson, Millen
First Vice-President.....	Major Fowler, Atlanta
Second Vice-President.....	C. Hall Farmer, Macon
Parliamentarian.....	John W. Simmons, Brunswick
Secretary-Treasurer.....	Edgar D. Shanks, Atlanta

Delegates to A. M. A.

Wm. A. Mulherin (1943-44).....	Augusta
Alternate, B. H. Minchew.....	Waycross
Allen H. Bunce (1943-44).....	Atlanta
Alternate, H. C. Sauls.....	Atlanta
Olin H. Weaver (1944-45).....	Macon
Alternate, C. K. Sharp.....	Arlington

Council

Z. V. Johnston, Chairman.....	Calhoun
Steve P. Kenyon, Clerk.....	Dawson

Councilors

1. C. Thompson (1945).....	Millen
2. C. K. Wall (1945).....	Thomasville
3. Steve P. Kenyon (1945).....	Dawson
4. Kenneth S. Hunt (1945).....	Griffin
5. Marion C. Pruitt (1946).....	Atlanta
6. H. D. Allen, Jr. (1946).....	Milledgeville
7. Z. V. Johnston (1946).....	Calhoun
8. W. F. Reavis (1946).....	Waycross
9. C. B. Lord (1944).....	Jefferson
10. Harry L. Cheves (1944).....	Union Point

Vice-Councilors

1. R. V. Martin (1945).....	Savannah
2. C. H. Watt (1945).....	Thomasville
3. Guy J. Dillard (1945).....	Columbus
4. Enoch Callaway (1945).....	LaGrange
5. S. A. Kirkland (1946).....	Atlanta
6. H. G. Weaver (1946).....	Macon
7. D. Lloyd Wood (1946).....	Dalton
8. Alton M. Johnson (1946).....	Valdosta
9. D. H. Garrison (1944).....	Clarkesville
10. J. Victor Roule (1944).....	Augusta

COMMITTEES

Executive Committee

W. A. Selman, President.....	Atlanta
Z. V. Johnston, Chairman of Council.....	Calhoun
Edgar D. Shanks, Secretary-Treasurer.....	Atlanta

Scientific Work

Mark S. Dougherty, Jr., Chairman (1944).....	Atlanta
B. H. Minchew (1945).....	Waycross
Ralph H. Chaney (1946).....	Augusta
Edgar D. Shanks, Secretary-Treasurer.....	Atlanta

Public Policy and Legislation

Spencer A. Kirkland, Chairman (1944).....	Atlanta
Edgar H. Greene (1946).....	Atlanta

J. L. Campbell (1945).....	Atlanta
Edgar D. Shanks, Secretary-Treasurer.....	Atlanta
T. F. Abercrombie, Director, State Department of Public Health.....	Atlanta

Medical Defense

Marion C. Pruitt, Chairman (1948).....	Atlanta
B. H. Minchew (1944).....	Waycross
A. R. Rozar (1945).....	Macon
Z. V. Johnston, Chairman of Council.....	Calhoun
Edgar D. Shanks, Secretary-Treasurer.....	Atlanta

ADVISORY

State Board of Health

Edgar H. Greene, Chairman.....	Atlanta
John B. Fitts.....	Atlanta
H. G. Weaver.....	Macon
D. H. Garrison.....	Clarkesville
Marcus Mashburn.....	Cumming
J. M. Barnett.....	Albany
J. C. Brim.....	Pelham
C. S. Pittman.....	Tifton
C. L. Ayers.....	Toccoa
W. G. Elliott.....	Cuthbert
C. W. Roberts, ex-officio.....	Atlanta

Hospitals

D. Henry Poer, Chairman (1948).....	Atlanta
R. H. Oppenheimer, Acting Chairman (1947).....	Atlanta
Cleveland Thompson (1944).....	Millen
L. P. Holmes (1945).....	Augusta
A. D. Little (1946).....	Thomasville

Revision of Pharmacopeia of U. S.

C. C. Aven, Chairman (1949).....	Atlanta
Allen H. Bunce (1949).....	Atlanta
Hal M. Davison (1949).....	Atlanta

Abner Wellborn Calhoun Lectureship

James E. Paullin, Chairman (1948).....	Atlanta
J. R. Broderick (1944).....	Savannah
Eugene E. Murphey (1945).....	Augusta
W. P. Harbin, Jr. (1946).....	Rome
Frank K. Boland (1947).....	Atlanta

Medical Economics

B. T. Beasley, Chairman.....	Atlanta
Vernon Powell.....	Atlanta
Major Fowler.....	Atlanta
Grady N. Coker.....	Canton
D. C. Kelley.....	Lawrenceville
T. J. Busey.....	Fayetteville
J. C. Keaton.....	Albany
C. W. Roberts, ex-officio.....	Atlanta

Memorial Exercises

A. J. Mooney, Chairman.....	Statesboro
W. A. Mulherin.....	Augusta
J. C. Patterson.....	Cuthbert
Grady N. Coker.....	Canton
Frank K. Boland.....	Atlanta
N. R. Thomas.....	Albany
J. E. Powell.....	Villa Rica

Medical History of Georgia

Sub-Committee

Frank K. Boland, Chairman.....	Atlanta
Joseph Krafka	Augusta
Chas. C. Harrold.....	Macon
Olin H. Weaver.....	Macon
J. Calvin Weaver.....	Atlanta
Eugene E. Murphey.....	Augusta

Cancer Commission

J. L. Campbell, Chairman.....	Atlanta
Lee Howard	Savannah
A. J. Mooney, Sr.....	Statesboro
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J. G. Williams, Atlanta, Sept. 1, 1945.

Georgia Pharmaceutical Association†

M. D. Hodges, Marietta, Sept. 1, 1941.
John W. White, Thomasville, Sept. 1, 1947.

*Nominated by their respective district medical societies and appointed for six year terms.

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Application blanks for space in the Scientific Exhibit are now available and may be obtained by communicating with the Director, Scientific Exhibit, American Medical Association, 535 N. Dearborn Street, Chicago 10, Illinois.

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OBITUARY

Dr. George Washington Kelly, Carlton; member; Atlanta College of Physicians and Surgeons, Atlanta, 1911; aged 53; died on October 2, 1943, at his home after an illness of more than three years. He was a native of Washington, Wilkes County. Dr. Kelly practiced medicine in Carlton and in adjoining counties for 25 years. He was an outstanding physician and citizen and had many friends. Dr. Kelly took a deep interest in many charity patients and devoted much time to their care. He was a member of the Clarke-Madison-Oconee Counties Medical Society, American Legion, Masonic Lodge and the Methodist Church. Surviving him are his widow, four sons, Sam H. Kelly, Baton Rouge, La.; George W. Kelly, Jr., Augusta; Wade H. Kelly, U. S. Army (foreign service); and Billy Kelly, Atlanta; one daughter, Miss Mary Kelly, Carlton. Rev. J. Lee Allgood of the First Methodist Church of Elberton officiated at the funeral services held at Carlton. Burial was in Carlton Cemetery.

Dr. Samuel P. Wise, Plains; member; Tulane University of Louisiana School of Medicine, New Orleans, 1911; aged 59; died on November 3, 1943, after a long illness. He was an outstanding surgeon and with his brothers operated the Wise Sanitarium at Plains from 1914 to 1936. During the operation of the institution it is claimed that thousands of persons from all parts of the nation came to the Doctors Wise for treatment and in search of health. He was a member of the Sumter County Medical Society, Rotary Club, Masonic Lodge, American Medical Association, American College of Surgeons and the Lutheran Church. Surviving him are two brothers, Dr. B. T. Wise, Americus, and Dr. Bowman J. Wise, Plains; one aunt, Mrs. Camilla Wise, DeSoto. Rev. L. C. Hahn officiated at the funeral services conducted at the Plains Lutheran Church. Burial was in Lebanon Cemetery.

Dr. Pierce Young Duckett, Cornelia; member; University of Georgia School of Medicine, Augusta, 1885; died November 18, 1943, at a private sanitarium in Decatur. He had led a long and useful life and formerly one of the leading practitioners in Habersham and adjoining counties. Dr. Duckett was a useful practitioner and one of the State's foremost citizens. Surviving him are his widow, four daughters and one son. Rev. A. T.

Cline and Rev. Edwards officiated at the funeral services conducted from the Cornelia Baptist Church. Interment was in Harmony Cemetery.

Dr. Francis Marion Brock, Roopville; University of Georgia School of Medicine, Augusta, 1888; aged 79; died on November 3, 1943, at his home. He was a native of Carroll County and spent his entire life there, except when studying medicine and one year that he practiced medicine in Luthersville. Dr. Brock retired from active practice many years ago. He was a member of the Masonic Lodge and the Roopville Baptist Church. Surviving him are his widow, one son, W. H. Brock, Atlanta; Mrs. Harry Sheats, Carrollton; and one stepson, B. Frank Roop. Burial was in the church cemetery.

Dr. Lovick Pierce Longino, Milledgeville; member; Atlanta College of Physicians and Surgeons, Atlanta, 1911; aged 64; died November 20, 1943. He served on the staff of the Milledgeville State Hospital for many years, also as superintendent, a position he held until recently when, on account of ill health, he retired. His ability as a psychiatrist and neurosurgeon was recognized by many of the physicians of the State. He was a faithful and loyal practitioner. Dr. Longino was a member of the Methodist Church and served on the Board of Stewards for a number of years. Surviving him are his widow and three sisters. Dr. E. Rudisill officiated at the funeral services conducted at the Methodist Church. Interment was in the Milledgeville Cemetery.

Dr. Nicholas Amon Funderburk, Trion; Emory University School of Medicine, Emory University, 1922; died on October 30, 1943, of heart disease. He was a native of Monroe, N. C. Dr. Funderburk was associated in practice at Summerville Hospital with Dr. W. B. Hair, later he was superintendent of the Trion Hospital. Surviving him are his widow, one daughter, Miss Nell Funderburk, and five sisters. Rev. L. D. Hardeman and Rev. J. F. Bulford officiated at the funeral services conducted at the Rives (Tenn.) Cemetery.

Dr. Leslie Benjamin Robinson, Atlanta; member; Vanderbilt University School of Medicine, Nashville, 1916; aged 55; died November 18, 1943. Born and reared in Madisonville, Kentucky. Dr. Robinson served in the Medical Corps of the A. E. F. during World War 1, later served an internship in the Memphis City Hospital. He was a member of the Fulton County Medical Society and the American Medical Association. Dr. Robinson served on the staffs of St. Joseph's Infirmary, Piedmont Hospital and Emory University Hospital. Surviving him are his widow and three brothers. Dr. William V. Gardner officiated at the funeral services conducted at Spring Hill Chapel. Burial was in West View Cemetery.

Dr. John Sutherland Hurt, Atlanta; member; New York University College of Medicine, New York City, 1903; aged 66; died November 26, 1943, in a private hospital. He was a native of Hurtsboro, Alabama. He

spent most of his boyhood in Columbus. After he graduated in medicine he served an internship in a New York City hospital. Dr. Hurt practiced medicine until he was forced to retire a few years ago on account of ill health. He was a member of the Fulton County Medical Society, Masons and Shrine. Surviving him are his widow, three daughters, Mrs. Harold Williams, Jacksonville, Fla.; Mrs. Henry C. Heinz, Jr., Miami, Fla.; and Mrs. John E. Starbuck, Jr., Atlanta; one son, John A. Hurt, Atlanta. Dr. Peter Manning officiated at the funeral services conducted at Spring Hill Chapel. Burial was in West View Cemetery.

Dr. Pierce Gordon Blanchard, Appling; member; University of Georgia School of Medicine, Augusta, 1911; aged 55; died Oct. 11, 1943, at the University Hospital, Augusta. He was a native of Columbia County and received his early education in the Columbia County schools. Few physicians were more successful in the practice of medicine and his greatest desire was to return his patients to health. Dr. Blanchard was a member of the Columbia County Commissioners, F. & A. M., Shrine and Damascus Baptist Church. Surviving him are his widow, seven daughters, Mrs. Grady Burch, Columbia, S. C.; Mrs. John Caldwell, Augusta; Lt. Lillian Grace Blanchard, Oliver General Hospital, Augusta; Miss Louise Blanchard, Miss Catherine Blanchard, all of Appling; two sons, J. G. Blanchard, Charleston and Appling; John Pierce Blanchard, Appling. Rev. Bert Joiner officiated at the funeral services conducted at the Damascus Baptist Church. Burial was in the churchyard.

Dr. James Taylor Hammond, Atlanta; University of Georgia School of Medicine, Augusta; aged 87; died November 2, 1943. He was born near Griffin. Dr. Hammond attended Mercer University, Macon, where he prepared for a medical education. He was highly interested in fox hounds and race horses, yet he did an extensive practice while he lived at Vada in the counties of Baker, Decatur, Miller and Mitchell. Dr. Hammond retired from active practice five years ago and moved to Atlanta. Surviving him are his widow, eight sons, Sam Hammond, Albany; J. T., Jr., Josh and Rudolph Hammond, all of Atlanta; Corporal Hardman and Sergeant Pinson Hammond, in the U. S. armed forces; W. H. Hammond, Panama City, Fla.; C. C. Hammond, Athens; five daughters, Mrs. John T. Thornton, Atlanta; Mrs. R. A. Howard, Portsmouth, Va.; Mrs. F. L. Heath, Macon; Miss Cynthia Hammond, Milledgeville; and Mrs. G. L. Cochran, Sylvester. Rev. J. T. Rigsby and Rev. Leslie Darley officiated at the funeral services held at Mount Pleasant Methodist Church at Vada. Burial was in the church cemetery.

DIABETIC IDENTIFICATION TAGS

At the suggestion of the Medical Division of the U. S. Office of Civilian Defense, to prevent dangerous delay in diagnosis and to insure proper treatment during unconsciousness or coma. Eli Lilly and Company, In-

dianapolis 6, Indiana, in co-operation with the American Diabetes Association, will provide metallic identification tags to be worn by diabetic patients or carried in the pocket. The inscription reads "DIABETIC, IF ILL CALL PHYSICIAN." No advertising of any sort appears on the tags, which will be supplied to the medical profession on request.

UPJOHN COMPANY

Executive changes in The Upjohn Company which are to become effective the first of the year will bring Donald S. Gilmore to the presidency, a position occupied by Dr. L. N. Upjohn since 1930.

Dr. Upjohn will assume the chairmanship of the board of directors, maintaining his active connection and his general supervision of the company's affairs. The changes were made at a special meeting of the board of directors on November 15.

In addition to the change in the presidency of the concern, the board elevated three men long identified with the executive direction of its affairs to vice-presidencies, effective immediately.

Dr. E. Gifford Upjohn, who has been with the company since 1931 and is now medical director, will retain his present duties as medical director in the post of vice-president. Dr. Harold S. Adams, who joined the company in 1926 and has been general superintendent, is vice-president and director of production.

The third man elevated to a vice-presidency is C. V. Patterson, a general sales manager. Mr. Patterson, also placed on the board of directors, now assumes the office of director of sales.

At the same meeting the board named Emil H. Schellack who, with Mr. Patterson, has been a general sales manager, the general sales manager of the company. Other officers of the company are John S. McColl, vice-president and treasurer; Dr. F. W. Heyl, vice-president and director of research; and J. B. Vanderberg, secretary.

Dr. L. N. Upjohn has been with the company since 1904, and was for 25 years head of the New York office. In 1930 he was elected president and took over the actual work of the office when he returned to Kalamazoo in 1931, when Dr. W. E. Upjohn, president and founder of the company, assumed the post of chairman of the board of directors.

Mr. Gilmore joined The Upjohn Company in 1930, and in 1936 was made vice-president and later general manager, retaining his position of vice-president.

Mr. Patterson and Mr. Schellack both came to the company from Missouri, the former in 1925 as a salesman and the latter in the same capacity in 1923. In 1931 Mr. Patterson came to Kalamazoo as secretary to the late Malcolm Galbraith, director of sales. Mr. Schellack came to the city in 1923 as Kalamazoo branch sales manager. In 1942, upon the death of Mr. Galbraith, the two men took over a joint office as general sales managers.

AMEBIASIS

The incidence of amebiasis has been shown to be greater than was formerly supposed, and there is reason to believe that the disease may become even more prevalent when large numbers of troops begin to return home from the tropics. Surveys collected before the war revealed that more than one in ten subjects harbored *E. histolytica*. It would seem reasonable, therefore, that whenever intestinal symptoms form a part of the clinical picture, the diagnosis should not be considered complete until the possibility of amebiasis has been ruled out. Chronic, uncomplicated intestinal amebiasis is the most frequent type, and it includes the carrier as well as the individual with recurrent or mildly persistent symptoms. Pulvules Carbarsone, Lilly, each containing 0.25 Gm., may be given orally at the rate of one pulvule two or three times daily to a total of twenty doses (5 Gm.). This routine may ordinarily be repeated several times, provide intervals of ten days are allowed between courses and the urine and liver show no evidence of damage. Bed rest is not necessary in this group.

THE SCHOOL-CHILD'S BREAKFAST

Many a child is scolded for dullness when he should be treated for undernourishment. In hundreds of homes a "continental" breakfast of a roll and coffee is the rule. If, day after day, a child breaks the night's fast of twelve hours on this scant fare, small wonder he is listless, nervous, or stupid at school. A happy solution to the problem is Pablum. Pablum furnishes protective factors especially needed by the schoolchild—especially calcium, iron and the vitamin B complex. The ease with which Pablum can be prepared enlists the mother's cooperation in serving a nutritious breakfast. This palatable cereal requires no further cooking and can be prepared simply by adding milk or water of any desired temperature.

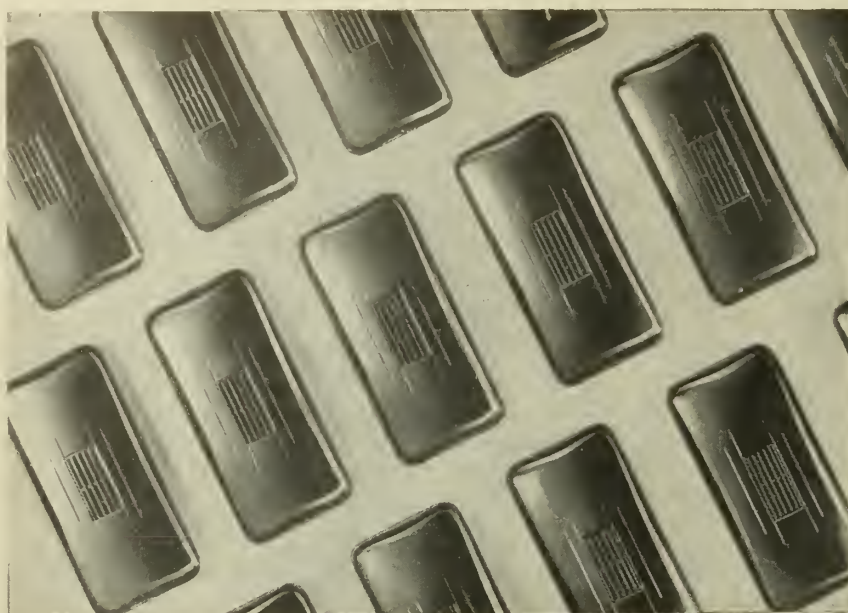
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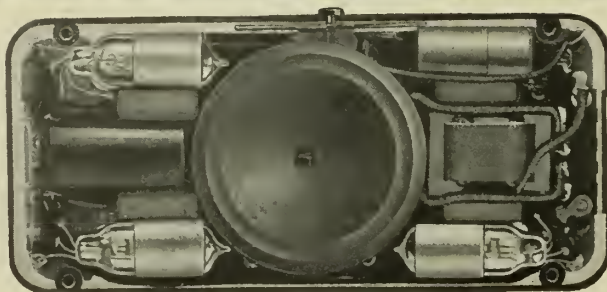
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High Fidelity **AUREX** HEARING AIDS

In a recent statement in the Saturday Evening Post by W. H. Huth, founder and president of of Aurex Corporation, he says, "Aurex gladly makes its laboratory and factory useful in manufacturing vital instruments of war as well as hearing aids which make it possible for more workers to get and keep important war jobs."

Behind Aurex is a research period of more than twenty years in the development of vacuum tube high fidelity. As a result the first wearable Aurex was a revelation in better hearing, and the outstanding contribution to the hard-of-hearing.

The creation of the vacuum tube in miniature size enabled Aurex engineers, who first made its use practical in hearing aid instruments,

to reduce the size of a hearing aid to a really small, conveniently wearable and efficient instrument. This was done without sacrificing any of the superior qualities of vacuum tube amplification.

Aurex research gives new importance to the correct amplification of certain parts of the hearing range to compensate properly for each client's own particular kind of hearing loss. This is scientifically determined by the individual's audiogram, made by a trained Aurex hearing analyst. Aurex provides all its offices with the number of different amplifiers necessary for fitting the several prevalent types and degrees of deafness. Special instruments for unusual or very difficult cases are made up as required at no extra cost.

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